Ross Apps 8.0.2 Release

performance test completion report

Version: 1.0

Date: 28-Jan-2022

**VERSION HISTORY**

This document is version controlled and the following tracks the changes made to this document.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Name** | **Role** | **Comments** |
| 1.0 | 28-Jan-2022 | Rakshith Chandregowda | Author |  |
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# 1 Introduction

## Description of the Product

Ross is a product designed to support manufacturers that work with recipes and formulas to help successfully manage the variability and complexities of the products and processes as well as accurately account for all raw material and finished products—which will significantly improve production scalability and product costing and traceability.

## Purpose of The Document

This document has been prepared for the performance testing effort of Ross Apps 8.0.2 Release (hereafter referred as current release). The document lists the tests performed, the issues identified during testing, current status of those issues and also provides the analysis and conclusion that can be derived from the tests.

## Objective of testing

The objective of testing was to baseline the performance of Ross Apps 8.0.2 Release and compare the results with that of Ross ERP 8.0.1 (previous release) for improvements or degradations, if any.

# Test Approach(s)

The entire activity will be done in 2 phases

Phase 1:

Script the identified critical business processes, run them on Ross ERP 8.0.1 version to simulate concurrent execution of the use cases, observe the impact on the application under load and finally arrive at the baseline values. The load test will be run for a duration of 1 to 2 hours and performance parameters will be captured for analysis.

Phase 2:

The baseline tests will be executed on Ross ERP 8.0.2 to capture all the identified performance metrics, compare them with the Ross ERP 8.0.1 baseline values and report them.

## Critical Business Process(s)

The following were identified as the critical business processes for Ross Browser

The script runs are to be performed for various users/ use cases as defined in the below matrix.

| SL No | Critical Business Processes based on MF | Transaction target/ hour | | #of users |
| --- | --- | --- | --- | --- |
| 1. | PO maintenance to Modify dates to PO lines from header | Transaction | 200 | 2 |
| 2. | Material Issue with substitution products | Transaction | 200 | 2 |
| 3. | DC Material Issue with substitution products | Transaction | 200 | 2 |
| 4. | Trace cost for Principal product output | Transaction | 10 | 2 |
| 5. | Non DC Lot Conversion for products | Transaction | 60 | 1 |
| 6. | DC Lot Conversion for products | Transaction | 60 | 1 |
| 7. | Tolerance check during material input – Amend Pick List | Transaction | 200 | 2 |
| 8. | Tolerance check during material input – Material Issue | Transaction | 200 | 2 |
| 9. | Tolerance check during material input – Manual Lot Allocation | Transaction | 200 | 2 |
| 10. | Create Sales Order | Common Transaction | 200 | 3 |
| 11. | Create Purchase Order | Common Transaction | 200 | 2 |
| 12. | Create Jobs | Common Transaction | 200 | 2 |
| 13. | Invoice entry - AR Module | Common Transaction | 200 | 2 |
| 14. | Warehouse Transfer | Common Transaction | 200 | 2 |
| 15. | Multi-Line Transaction | Common Transaction | 100 | 2 |
| 16. | Ship note creation and confirm from SO | Common Transaction | 200 | 2 |
| 17. | Invoice Creation from shipment | Common Transaction | 200 | 1 |
| 18. | GRN from PO | Common Transaction | 200 | 2 |
| 19. | Invoice from PO GRN | Common Transaction | 200 | 2 |
| 20. | Stage Count And Approve Count for Non-DC | Common Transaction | 200 | 2 |
| 21. | Partial job close | Common Transaction | 200 | 2 |
| 22. | Final job close | Common Transaction | 200 | 2 |
| 23 | DC Material Issue | Common Transaction | 200 | 2 |
| 24. | DC Partial close | Common Transaction | 200 | 2 |
| 25. | DC POP Receiving | Common Transaction | 200 | 2 |
| 26. | Pick and Confirm shipment DC Module | Common Transaction | 200 | 2 |
|  | Total |  |  | 50 |

# System under test configuration

The following was the software and hardware configuration used for the tests.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Server Type** | **Version** | **OS** | **Number of CPUs** | **RAM** | **Disk (GB)** |
| Application | .NET | Windows Server 2016 | 4 cores | 16 GB | C: 150 GB |
|
| Database | SQL DB | Windows Server 2016 | 8 cores | 16 GB | C: 250 GB |

# Tests performed And results

## Baseline Test:

### Objective of test

The objective of testing was to baseline the performance of Ross Apps 8.0.2 Release and compare the results with that of Ross ERP 8.0.1 for improvements or degradations, if any.

### Summary

The baseline tests were executed on Ross Apps 8.0.2 Release builds iteratively, capturing all the identified performance metrics to compare with the Ross Browser execution baseline values. The tests were executed for a duration of 1 hour with the user mix mentioned above. The sections that follow, discuss the results of Ross Apps 8.0.2 Release and Ross ERP 8.0.1 and the comparison between the two versions of the application.

### Results

* Below are the achieved transaction count for the use cases.

| SL No | Critical Business Processes based on MF | Target Transaction/Hour | Achieved Transactions/Hour |
| --- | --- | --- | --- |
| 1. | PO maintenance to Modify dates to PO lines from header | 200 | 237 |
| 2. | Material Issue with substitution products | 200 | 234 |
| 3. | DC Material Issue with substitution products | 200 | 236 |
| 4. | Trace cost for Principal product output | 10 | 46 |
| 5. | Non DC Lot Conversion for products | 60 | 121 |
| 6. | DC Lot Conversion for products | 60 | 86 |
| 7. | Tolerance check during material input – Amend Pick List | 200 | 343 |
| 8. | Tolerance check during material input – Material Issue | 200 | 212 |
| 9. | Tolerance check during material input – Manual Lot Allocation | 200 | 199 |
| 10. | Create Sales Order | 200 | 408 |
| 11. | Create Purchase Order | 200 | 294 |
| 12. | Create Jobs | 200 | 284 |
| 13. | Invoice entry - AR Module | 200 | 297 |
| 14. | Warehouse Transfer | 200 | 322 |
| 15. | Multi-Line Transaction | 100 | 216 |
| 16. | Ship note creation and confirm from SO | 200 | 240 |
| 17. | Invoice Creation from shipment | 200 | 220 |
| 18. | GRN from PO | 200 | 186 |
| 19. | Invoice from PO GRN | 200 | 240 |
| 20. | Stage Count And Approve Count for Non-DC | 200 | 200 |
| 21. | Partial job close | 200 | 235 |
| 22. | Final job close | 200 | 240 |
| 23 | DC Material Issue | 200 | 240 |
| 24. | DC Partial close | 200 | 239 |
| 25. | DC POP Receiving | 200 | 213 |
| 26. | Pick and Confirm shipment DC Module | 200 | 205 |
|  | **Total** | **4630** | **5993** |

### Observations

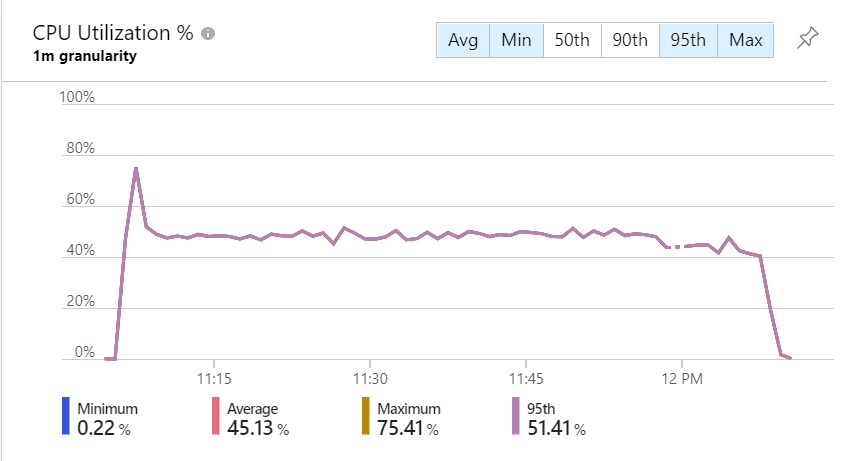
* During the Load Test, we observed that transaction response times for Login transaction were high.
* We observe that for GRN Creation scenario we were not able to achieve identified transaction per hour.

**4.1.5 Transaction Response Times**

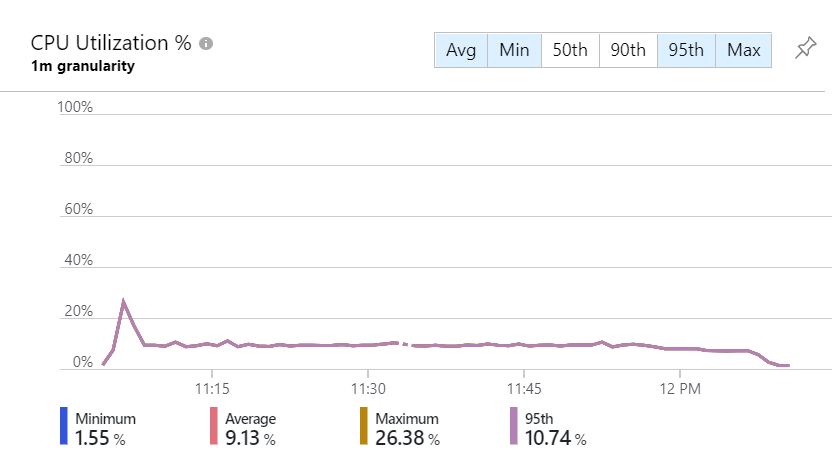
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Transaction Name | Maximum | Std. Deviation | 90 Percent | Pass |
| AmendPickList\_01\_Launch | 0.399 | 0.016 | 0.399 | 2 |
| AmendPickList\_02\_Login | 5.342 | 0.773 | 5.342 | 2 |
| AmendPickList\_03\_Open\_AmendPicklistFaclility | 2.37 | 0.228 | 0.694 | 343 |
| AmendPickList\_04\_Enter\_Factory | 1.704 | 0.12 | 0.159 | 343 |
| AmendPickList\_05\_Enter\_PickNumber | 1.116 | 0.103 | 0.256 | 343 |
| AmendPickList\_06\_DoubleClickOnNonDCLine | 1.36 | 0.128 | 0.241 | 343 |
| AmendPickList\_07\_Click\_Tab | 1.807 | 0.16 | 0.216 | 343 |
| AmendPickList\_08\_Click\_Tab | 0.626 | 0.069 | 0.188 | 343 |
| AmendPickList\_09\_Enter\_PickedQty | 1.315 | 0.102 | 0.211 | 343 |
| AmendPickList\_10\_click\_YesInPickingQty | 1.42 | 0.134 | 0.191 | 343 |
| AmendPickList\_11\_click\_Yes | 1.018 | 0.106 | 0.431 | 343 |
| AmendPickList\_12\_DoubleClickOnDCLine | 1.883 | 0.154 | 0.46 | 343 |
| AmendPickList\_13\_Click\_Tab | 1.292 | 0.128 | 0.22 | 343 |
| AmendPickList\_14\_Click\_Tab | 1.448 | 0.132 | 0.221 | 343 |
| AmendPickList\_15\_Enter\_PickedQty | 1.508 | 0.12 | 0.197 | 343 |
| AmendPickList\_16\_Click\_YesInPickingQty | 1.352 | 0.095 | 0.173 | 343 |
| AmendPickList\_17\_Click\_Yes | 1.448 | 0.127 | 0.41 | 343 |
| AmendPickList\_18\_Click\_ExitForward | 1.345 | 0.118 | 0.165 | 343 |
| AmendPickList\_19\_Click\_ExitBackward | 1.19 | 0.112 | 0.343 | 343 |
| AmendPickList\_20\_LogOut | 0.476 | 0.013 | 0.476 | 2 |
| AR\_InvoiceEntry\_01\_Launch | 0.597 | 0.02 | 0.597 | 2 |
| AR\_InvoiceEntry\_02\_Login | 4.78 | 0.506 | 4.78 | 2 |
| AR\_InvoiceEntry\_03\_Open\_InvoiceEntryFacility | 3.951 | 0.312 | 0.689 | 297 |
| AR\_InvoiceEntry\_04\_Click\_EnterNewInvoice | 1.241 | 0.118 | 0.195 | 297 |
| AR\_InvoiceEntry\_05\_Enter\_Division | 0.895 | 0.084 | 0.145 | 297 |
| AR\_InvoiceEntry\_06\_Enter\_Customer | 0.976 | 0.093 | 0.239 | 297 |
| AR\_InvoiceEntry\_07\_Click\_ExitForward | 0.864 | 0.085 | 0.182 | 297 |
| AR\_InvoiceEntry\_08\_Click\_EnterInvoiceLines | 1.087 | 0.102 | 0.223 | 297 |
| AR\_InvoiceEntry\_09\_Click\_InsertIcon | 0.789 | 0.077 | 0.178 | 297 |
| AR\_InvoiceEntry\_10\_Click\_ExitForward | 1.495 | 0.132 | 0.223 | 297 |
| AR\_InvoiceEntry\_11\_Enter\_Product | 1.368 | 0.114 | 0.213 | 297 |
| AR\_InvoiceEntry\_12\_Enter\_InvoiceQuantity | 1.822 | 0.193 | 0.337 | 297 |
| AR\_InvoiceEntry\_13\_Enter\_SalesPrice | 1.62 | 0.119 | 0.259 | 297 |
| AR\_InvoiceEntry\_14\_Click\_NextLine | 1.507 | 0.111 | 0.3 | 297 |
| AR\_InvoiceEntry\_15\_Click\_ExitBackward | 1.619 | 0.121 | 0.216 | 297 |
| AR\_InvoiceEntry\_16\_Click\_ExitForward | 1.79 | 0.158 | 0.26 | 297 |
| AR\_InvoiceEntry\_17\_Click\_ExitForward | 0.693 | 0.067 | 0.187 | 297 |
| AR\_InvoiceEntry\_18\_Click\_ExitForward | 0.633 | 0.068 | 0.19 | 297 |
| AR\_InvoiceEntry\_19\_Click\_Yes | 0.808 | 0.118 | 0.211 | 297 |
| AR\_InvoiceEntry\_20\_Click\_NextInvoice | 1.533 | 0.117 | 0.214 | 297 |
| AR\_InvoiceEntry\_21\_Click\_ExitBackward | 1.148 | 0.118 | 0.16 | 297 |
| AR\_InvoiceEntry\_22\_Click\_Exit | 1.785 | 0.154 | 0.346 | 297 |
| AR\_InvoiceEntry\_23\_Logout | 0.64 | 0.007 | 0.64 | 2 |
| CreateJobs\_01\_Launch | 0.236 | 0.009 | 0.236 | 2 |
| CreateJobs\_02\_Login | 5.821 | 0.768 | 5.821 | 2 |
| CreateJobs\_03\_Open\_CreateJobsFacility | 2.693 | 0.251 | 0.65 | 284 |
| CreateJobs\_04\_Enter\_Factory | 1.204 | 0.088 | 0.185 | 284 |
| CreateJobs\_05\_ClickOnInsert | 0.875 | 0.097 | 0.209 | 284 |
| CreateJobs\_06\_Click\_Tab | 0.994 | 0.106 | 0.212 | 284 |
| CreateJobs\_07\_Click\_Tab2 | 1.402 | 0.13 | 0.165 | 284 |
| CreateJobs\_08\_StartDate | 1.413 | 0.17 | 0.365 | 284 |
| CreateJobs\_09\_EndDate | 1.37 | 0.139 | 0.387 | 284 |
| CreateJobs\_10\_Enter\_ProcessSpec | 1.159 | 0.104 | 0.209 | 284 |
| CreateJobs\_11\_SelectReleaseStatus | 1.223 | 0.129 | 0.435 | 284 |
| CreateJobs\_12\_EnterABValue | 1.414 | 0.134 | 0.295 | 284 |
| CreateJobs\_13\_DoubleClickOnLine1 | 0.893 | 0.074 | 0.214 | 284 |
| CreateJobs\_14\_EnterRequiredOutput1 | 1.031 | 0.113 | 0.222 | 284 |
| CreateJobs\_15\_DoubleClickOnLine2 | 1.191 | 0.102 | 0.208 | 284 |
| CreateJobs\_16\_EnterRequiredOutput2 | 0.703 | 0.083 | 0.215 | 284 |
| CreateJobs\_17\_ExitForward | 0.991 | 0.086 | 0.219 | 284 |
| CreateJobs\_18\_ExitBackward | 1.084 | 0.083 | 0.172 | 284 |
| CreateJobs\_19\_ExitForward | 1.015 | 0.086 | 0.195 | 284 |
| CreateJobs\_20\_CreateJobs | 4.198 | 0.674 | 1.902 | 284 |
| CreateJobs\_21\_ExitForward | 0.734 | 0.081 | 0.363 | 284 |
| CreateJobs\_22\_ExitBackward | 1.593 | 0.163 | 0.369 | 284 |
| CreateJobs\_23\_Logout | 0.561 | 0.006 | 0.561 | 2 |
| CreateShipmentAndConfirmShipment\_01\_Launch | 0.331 | 0.055 | 0.331 | 2 |
| CreateShipmentAndConfirmShipment\_02\_Login | 4.043 | 0.115 | 4.043 | 2 |
| CreateShipmentAndConfirmShipment\_03\_Open\_CreateShipmentFacility | 2.838 | 0.309 | 0.639 | 240 |
| CreateShipmentAndConfirmShipment\_04\_Enter\_Division | 0.844 | 0.086 | 0.173 | 240 |
| CreateShipmentAndConfirmShipment\_05\_Enter\_ActionCode | 0.407 | 0.053 | 0.148 | 240 |
| CreateShipmentAndConfirmShipment\_06\_Enter\_CriteriaCode | 0.661 | 0.056 | 0.141 | 240 |
| CreateShipmentAndConfirmShipment\_07\_Enter\_SalesNumber | 0.871 | 0.081 | 0.187 | 240 |
| CreateShipmentAndConfirmShipment\_08\_Click\_Yes | 0.548 | 0.055 | 0.157 | 240 |
| CreateShipmentAndConfirmShipment\_09\_Click\_CreateShipping | 1.167 | 0.095 | 0.212 | 240 |
| CreateShipmentAndConfirmShipment\_10\_Click\_No | 3.237 | 0.189 | 1.431 | 240 |
| CreateShipmentAndConfirmShipment\_11\_Click\_ExitBackward | 1.278 | 0.087 | 0.31 | 240 |
| CreateShipmentAndConfirmShipment\_12\_Open\_ConfirmShipmentFacility | 1.702 | 0.159 | 0.612 | 240 |
| CreateShipmentAndConfirmShipment\_13\_Enter\_Division | 1.085 | 0.085 | 0.145 | 240 |
| CreateShipmentAndConfirmShipment\_14\_Open\_ShipNoteLOV | 1.094 | 0.11 | 0.476 | 240 |
| CreateShipmentAndConfirmShipment\_15\_SearchShipNote | 1.275 | 0.1 | 0.403 | 240 |
| CreateShipmentAndConfirmShipment\_16\_SelectShipNote | 1 | 0.066 | 0.141 | 240 |
| CreateShipmentAndConfirmShipment\_17\_Click\_ExitForward | 0.617 | 0.076 | 0.168 | 240 |
| CreateShipmentAndConfirmShipment\_18\_Click\_Yes | 1.07 | 0.096 | 0.359 | 240 |
| CreateShipmentAndConfirmShipment\_19\_Click\_ExitForward | 0.612 | 0.077 | 0.274 | 240 |
| CreateShipmentAndConfirmShipment\_20\_Click\_ConfirmShippingNow | 1.366 | 0.117 | 0.684 | 240 |
| CreateShipmentAndConfirmShipment\_21\_Click\_ExitBackward | 1.542 | 0.13 | 0.504 | 240 |
| CreateShipmentAndConfirmShipment\_22\_LogOut | 0.833 | 0.1 | 0.833 | 2 |
| DC\_MaterialIssue\_01\_Launch | 0.395 | 0.036 | 0.395 | 2 |
| DC\_MaterialIssue\_02\_Login | 4.105 | 0.167 | 4.105 | 2 |
| DC\_MaterialIssue\_03\_Open\_MaterialIssueFacility | 2.389 | 0.226 | 0.684 | 240 |
| DC\_MaterialIssue\_04\_Enter\_JobNumber | 0.684 | 0.079 | 0.16 | 240 |
| DC\_MaterialIssue\_05\_Enter\_Product | 1.068 | 0.112 | 0.174 | 240 |
| DC\_MaterialIssue\_06\_Enter\_LPN | 1.315 | 0.096 | 0.214 | 240 |
| DC\_MaterialIssue\_07\_Click\_ExitForward | 0.761 | 0.087 | 0.172 | 240 |
| DC\_MaterialIssue\_08\_Click\_Update | 1.59 | 0.145 | 0.533 | 240 |
| DC\_MaterialIssue\_09\_Click\_ExitBackward | 0.916 | 0.11 | 0.361 | 240 |
| DC\_MaterialIssue\_10\_LogOut | 0.685 | 0 | 0.685 | 2 |
| DC\_PartialClose\_01\_Launch | 0.514 | 0.054 | 0.514 | 2 |
| DC\_PartialClose\_02\_Login | 3.664 | 0.243 | 3.664 | 2 |
| DC\_PartialClose\_03\_Open\_PartialCloseFacility | 2.326 | 0.285 | 0.817 | 239 |
| DC\_PartialClose\_04\_Enter\_JobNumber | 3.221 | 0.204 | 2.429 | 239 |
| DC\_PartialClose\_05\_Enter\_LPN | 1.007 | 0.102 | 0.229 | 239 |
| DC\_PartialClose\_06\_Enter\_Bin | 1.033 | 0.128 | 0.227 | 239 |
| DC\_PartialClose\_06\_Enter\_LotNumber | 0.399 | 0.039 | 0.137 | 239 |
| DC\_PartialClose\_07\_Click\_ExitForward | 1.333 | 0.103 | 0.149 | 239 |
| DC\_PartialClose\_08\_Click\_Enter | 0.414 | 0.043 | 0.16 | 239 |
| DC\_PartialClose\_09\_Click\_Enter | 0.981 | 0.093 | 0.206 | 239 |
| DC\_PartialClose\_10\_Enter\_Quantity | 0.398 | 0.051 | 0.152 | 239 |
| DC\_PartialClose\_11\_Click\_Update | 2.216 | 0.173 | 0.699 | 239 |
| DC\_PartialClose\_12\_CloseFacility | 1.046 | 0.099 | 0.481 | 239 |
| DC\_PartialClose\_13\_Logout | 0.626 | 0.058 | 0.626 | 2 |
| DC\_PickAndConfirmShipment\_01\_Launch | 0.408 | 0.003 | 0.408 | 2 |
| DC\_PickAndConfirmShipment\_02\_Login | 4.534 | 0.386 | 4.534 | 2 |
| DC\_PickAndConfirmShipment\_03\_OpenPickByShipNote | 2.172 | 0.219 | 0.605 | 205 |
| DC\_PickAndConfirmShipment\_04\_EnterShipNote | 1.51 | 0.197 | 0.298 | 205 |
| DC\_PickAndConfirmShipment\_05\_DoubleClickOnLine | 1.248 | 0.133 | 0.18 | 205 |
| DC\_PickAndConfirmShipment\_06\_EnterLPN | 1.069 | 0.095 | 0.218 | 205 |
| DC\_PickAndConfirmShipment\_07\_ClickTab | 0.675 | 0.058 | 0.131 | 205 |
| DC\_PickAndConfirmShipment\_08\_EnterSLPN | 0.736 | 0.081 | 0.207 | 205 |
| DC\_PickAndConfirmShipment\_09\_EnterBin | 0.604 | 0.075 | 0.181 | 205 |
| DC\_PickAndConfirmShipment\_10\_ClickUpdate | 1.382 | 0.157 | 0.481 | 205 |
| DC\_PickAndConfirmShipment\_11\_ExitForward | 1.449 | 0.114 | 0.291 | 205 |
| DC\_PickAndConfirmShipment\_12\_ExitBackward | 0.852 | 0.109 | 0.402 | 205 |
| DC\_PickAndConfirmShipment\_13\_OpenConfirmShipmentFacility | 3.333 | 0.257 | 0.646 | 205 |
| DC\_PickAndConfirmShipment\_14\_EnterShipNote | 0.73 | 0.077 | 0.164 | 205 |
| DC\_PickAndConfirmShipment\_15\_EnterLPN | 1.157 | 0.107 | 0.183 | 205 |
| DC\_PickAndConfirmShipment\_16\_ClickUpdate | 2.219 | 0.2 | 0.861 | 205 |
| DC\_PickAndConfirmShipment\_17\_ExitBackward | 1.349 | 0.106 | 0.341 | 205 |
| DC\_PickAndConfirmShipment\_18\_Logout | 0.618 | 0.005 | 0.618 | 2 |
| DCLotConversion\_01\_Launch | 0.332 | 0 | 0.332 | 1 |
| DCLotConversion\_02\_Login | 4.623 | 0 | 4.623 | 1 |
| DCLotConversion\_03\_Open\_LotConversionFacility | 2.388 | 0.272 | 0.673 | 86 |
| DCLotConversion\_04\_Enter\_Product | 1.422 | 0.171 | 0.237 | 86 |
| DCLotConversion\_05\_Click\_Inputs | 0.472 | 0.085 | 0.178 | 86 |
| DCLotConversion\_06\_Enter\_LPN | 0.517 | 0.054 | 0.215 | 86 |
| DCLotConversion\_07\_Enter\_Qunatity | 0.417 | 0.061 | 0.216 | 86 |
| DCLotConversion\_08\_Click\_Continue | 0.611 | 0.09 | 0.157 | 86 |
| DCLotConversion\_09\_Click\_Outputs | 1.725 | 0.196 | 0.239 | 86 |
| DCLotConversion\_10\_Enter\_Lot | 0.712 | 0.09 | 0.228 | 86 |
| DCLotConversion\_11\_Enter\_Quantity | 0.669 | 0.09 | 0.181 | 86 |
| DCLotConversion\_12\_Enter\_LPN | 1.225 | 0.171 | 0.209 | 86 |
| DCLotConversion\_13\_Click\_Continue | 1.047 | 0.132 | 0.159 | 86 |
| DCLotConversion\_14\_Click\_Update | 1.757 | 0.205 | 0.812 | 86 |
| DCLotConversion\_15\_Click\_ExitBackward | 1.247 | 0.153 | 0.369 | 86 |
| DCLotConversion\_16\_Logout | 0.514 | 0 | 0.514 | 1 |
| DCMatIssueWithSubstituteProduct\_01\_Launch | 0.566 | 0.015 | 0.566 | 2 |
| DCMatIssueWithSubstituteProduct\_02\_Login | 6.253 | 1.085 | 6.253 | 2 |
| DCMatIssueWithSubstituteProduct\_03\_OpenMatIssueSubstituteFacility | 2.137 | 0.262 | 0.694 | 236 |
| DCMatIssueWithSubstituteProduct\_04\_Enter\_JobNumber | 1.371 | 0.151 | 0.195 | 236 |
| DCMatIssueWithSubstituteProduct\_05\_Enter\_Product | 1.371 | 0.127 | 0.217 | 236 |
| DCMatIssueWithSubstituteProduct\_06\_Enter\_LPN | 1.07 | 0.121 | 0.216 | 236 |
| DCMatIssueWithSubstituteProduct\_07\_Click\_SubstituteMaterialIssue | 1.03 | 0.109 | 0.202 | 236 |
| DCMatIssueWithSubstituteProduct\_08\_DoubleClickOnLineinTheGrid | 0.492 | 0.063 | 0.177 | 236 |
| DCMatIssueWithSubstituteProduct\_09\_Click\_ExitForward | 1.292 | 0.101 | 0.194 | 236 |
| DCMatIssueWithSubstituteProduct\_10\_Click\_Update | 1.808 | 0.169 | 0.585 | 236 |
| DCMatIssueWithSubstituteProduct\_11\_Click\_ExitBackward | 1.321 | 0.159 | 0.386 | 236 |
| DCMatIssueWithSubstituteProduct\_12\_LogOut | 0.577 | 0.024 | 0.577 | 2 |
| FinalJobClose\_01\_Launch | 0.407 | 0.008 | 0.407 | 2 |
| FinalJobClose\_02\_Login | 4.56 | 0.336 | 4.56 | 2 |
| FinalJobClose\_03\_OpenFinalJobCloseFacility | 2.097 | 0.201 | 0.605 | 240 |
| FinalJobClose\_04\_EnterFactory | 0.945 | 0.09 | 0.15 | 240 |
| FinalJobClose\_05\_EnterJobNumber | 1.822 | 0.15 | 0.463 | 240 |
| FinalJobClose\_06\_DoubleClickOnLine | 0.87 | 0.081 | 0.184 | 240 |
| FinalJobClose\_07\_ClickProceedWithUpdate | 1.009 | 0.085 | 0.149 | 240 |
| FinalJobClose\_08\_ClickYes | 2.934 | 0.223 | 0.856 | 240 |
| FinalJobClose\_09\_ExitForward | 1.815 | 0.133 | 0.372 | 240 |
| FinalJobClose\_10\_Logout | 0.835 | 0.105 | 0.835 | 2 |
| GRNCreation\_01\_Launch | 0.596 | 0.137 | 0.596 | 2 |
| GRNCreation\_02\_Login | 5.342 | 0.799 | 5.342 | 2 |
| GRNCreation\_03\_Open\_ReceiveAndLocateFacility | 1.836 | 0.181 | 0.615 | 186 |
| GRNCreation\_04\_Enter\_Division | 0.8 | 0.071 | 0.152 | 186 |
| GRNCreation\_05\_Enter\_PONumber | 1.512 | 0.174 | 0.291 | 186 |
| GRNCreation\_06\_Click\_ExitForward | 1.206 | 0.123 | 0.193 | 186 |
| GRNCreation\_07\_Click\_Lines | 1.797 | 0.137 | 0.4 | 186 |
| GRNCreation\_08\_DoubleClickOnLineInTheGrid | 0.714 | 0.098 | 0.266 | 186 |
| GRNCreation\_09\_Click\_Tab | 1.02 | 0.108 | 0.191 | 186 |
| GRNCreation\_10\_Click\_Tab | 1.686 | 0.161 | 0.177 | 186 |
| GRNCreation\_11\_Click\_Tab | 1.808 | 0.157 | 0.203 | 186 |
| GRNCreation\_12\_Enter\_ReceivedQty | 0.865 | 0.101 | 0.201 | 186 |
| GRNCreation\_13\_Click\_Continue | 1.803 | 0.195 | 0.384 | 186 |
| GRNCreation\_14\_Click\_ExitForward | 1.977 | 0.222 | 0.826 | 186 |
| GRNCreation\_15\_DoubleClickOnLineinTheGrid | 0.627 | 0.072 | 0.204 | 186 |
| GRNCreation\_16\_Enter\_LotNumber | 1.377 | 0.147 | 0.226 | 186 |
| GRNCreation\_17\_Enter\_Bin | 1.099 | 0.099 | 0.355 | 186 |
| GRNCreation\_18\_Click\_ExitForward | 2.511 | 0.222 | 1.005 | 186 |
| GRNCreation\_19\_Click\_ExitBackward | 1.198 | 0.133 | 0.385 | 186 |
| GRNCreation\_20\_Logout | 0.555 | 0.005 | 0.555 | 2 |
| InvoiceByShipNote\_01\_Launch | 0.242 | 0 | 0.242 | 1 |
| InvoiceByShipNote\_02\_Login | 3.692 | 0 | 3.692 | 1 |
| InvoiceByShipNote\_03\_Open\_InvoiceByShipNoteFacility | 1.733 | 0.145 | 0.584 | 220 |
| InvoiceByShipNote\_04\_Enter\_Division | 0.864 | 0.09 | 0.217 | 220 |
| InvoiceByShipNote\_05\_Enter\_ShipNote | 1.818 | 0.156 | 0.313 | 220 |
| InvoiceByShipNote\_06\_Click\_ShippingNote | 1.729 | 0.124 | 0.146 | 220 |
| InvoiceByShipNote\_07\_Click\_GenerateInvoiceNow | 2.449 | 0.191 | 0.636 | 220 |
| InvoiceByShipNote\_08\_ExitBackward | 1.415 | 0.116 | 0.382 | 220 |
| InvoiceByShipNote\_09\_Logout | 0.642 | 0 | 0.642 | 1 |
| InvoiceFromPOGRN\_01\_Launch | 0.495 | 0.075 | 0.495 | 2 |
| InvoiceFromPOGRN\_02\_Login | 4.894 | 0.687 | 4.894 | 2 |
| InvoiceFromPOGRN\_03\_Open\_InvoiceFromSingleGRNFacility | 2.836 | 0.262 | 0.717 | 240 |
| InvoiceFromPOGRN\_04\_Click\_InvoiceEntry | 1.004 | 0.089 | 0.179 | 240 |
| InvoiceFromPOGRN\_05\_Enter\_Division | 1.642 | 0.14 | 0.191 | 240 |
| InvoiceFromPOGRN\_06\_Enter\_GRNNumber | 1.584 | 0.166 | 0.267 | 240 |
| InvoiceFromPOGRN\_07\_Click\_EnterInvoiceLines | 1.836 | 0.179 | 0.717 | 240 |
| InvoiceFromPOGRN\_08\_Click\_ExitForward | 1.234 | 0.097 | 0.255 | 240 |
| InvoiceFromPOGRN\_09\_Click\_ExitForward | 1.261 | 0.111 | 0.194 | 240 |
| InvoiceFromPOGRN\_10\_Click\_Yes | 1.132 | 0.1 | 0.192 | 240 |
| InvoiceFromPOGRN\_11\_Click\_NextInvoice | 2.037 | 0.212 | 0.476 | 240 |
| InvoiceFromPOGRN\_12\_Click\_ExitBackward | 1.051 | 0.104 | 0.177 | 240 |
| InvoiceFromPOGRN\_13\_Click\_Exit | 1.715 | 0.134 | 0.396 | 240 |
| InvoiceFromPOGRN\_14\_Logout | 0.625 | 0.003 | 0.625 | 2 |
| ManualLotAllocation\_01\_Launch | 0.394 | 0.014 | 0.394 | 2 |
| ManualLotAllocation\_02\_Login | 4.808 | 0.39 | 4.808 | 2 |
| ManualLotAllocation\_03\_Open\_LotAllocationFacility | 1.853 | 0.187 | 0.61 | 199 |
| ManualLotAllocation\_04\_Enter\_Factory | 1.252 | 0.128 | 0.155 | 199 |
| ManualLotAllocation\_05\_Enter\_JobNumber | 0.959 | 0.098 | 0.165 | 199 |
| ManualLotAllocation\_06\_Click\_YesButton | 1.137 | 0.127 | 0.346 | 199 |
| ManualLotAllocation\_07\_DoubleClickOnNonDCLine | 0.879 | 0.112 | 0.258 | 199 |
| ManualLotAllocation\_08\_DoubleClickOnL1LotLine | 1.614 | 0.154 | 0.229 | 199 |
| ManualLotAllocation\_09\_Enter\_AllocationQunatity | 1.709 | 0.168 | 0.31 | 199 |
| ManualLotAllocation\_10\_DoubleClickOnL2LotLine | 1.215 | 0.122 | 0.309 | 199 |
| ManualLotAllocation\_11\_Enter\_AllocationQunatity | 1.454 | 0.139 | 0.28 | 199 |
| ManualLotAllocation\_12\_Click\_ExitForward | 1.814 | 0.192 | 0.611 | 199 |
| ManualLotAllocation\_13\_DoubleClickOnDCLine | 0.719 | 0.104 | 0.291 | 199 |
| ManualLotAllocation\_14\_DoubleClickOnL1LotLine | 1.346 | 0.126 | 0.227 | 199 |
| ManualLotAllocation\_15\_Enter\_AllocationQuantity | 0.897 | 0.113 | 0.318 | 199 |
| ManualLotAllocation\_16\_Click\_ExitForward | 1.522 | 0.148 | 0.621 | 199 |
| ManualLotAllocation\_17\_Click\_ExitForward | 1.259 | 0.119 | 0.415 | 199 |
| ManualLotAllocation\_18\_Click\_ExitBackward | 1.693 | 0.178 | 0.378 | 199 |
| ManualLotAllocation\_19\_Logout | 0.514 | 0.009 | 0.514 | 2 |
| MaterialIssue\_01\_Launch | 0.489 | 0.038 | 0.489 | 2 |
| MaterialIssue\_02\_Login | 4.08 | 0.035 | 4.08 | 2 |
| MaterialIssue\_03\_Open\_MaterialIssueFacility | 3.099 | 0.281 | 0.627 | 212 |
| MaterialIssue\_04\_Enter\_Factory | 0.509 | 0.053 | 0.144 | 212 |
| MaterialIssue\_05\_Enter\_JobNumber | 0.821 | 0.082 | 0.147 | 212 |
| MaterialIssue\_06\_Enter\_ProcessStage | 2.024 | 0.205 | 0.401 | 212 |
| MaterialIssue\_07\_Click\_LineinGrid | 1.558 | 0.14 | 0.223 | 212 |
| MaterialIssue\_08\_Click\_IssueOption | 1.246 | 0.107 | 0.223 | 212 |
| MaterialIssue\_09\_ExitForward | 1.16 | 0.126 | 0.226 | 212 |
| MaterialIssue\_10\_Click\_NO | 1.714 | 0.148 | 0.222 | 212 |
| MaterialIssue\_11\_Click\_Yes | 0.879 | 0.106 | 0.372 | 212 |
| MaterialIssue\_12\_DoubleClick\_OnTheLineInGrid | 1.477 | 0.12 | 0.196 | 212 |
| MaterialIssue\_13\_ExitForward | 1.204 | 0.139 | 0.197 | 212 |
| MaterialIssue\_14\_Click\_Yes | 1.817 | 0.166 | 0.351 | 212 |
| MaterialIssue\_15\_ExitForward1 | 2.508 | 0.263 | 0.76 | 212 |
| MaterialIssue\_16\_ExitForward2 | 0.781 | 0.095 | 0.421 | 212 |
| MaterialIssue\_17\_ExitBackward | 0.902 | 0.102 | 0.38 | 212 |
| MaterialIssue\_18\_Logout | 0.731 | 0.046 | 0.731 | 2 |
| MaterialIssueWithSubstituteProduct\_01\_Launch | 0.423 | 0.042 | 0.423 | 2 |
| MaterialIssueWithSubstituteProduct\_02\_Login | 4.517 | 0.152 | 4.517 | 2 |
| MaterialIssueWithSubstituteProduct\_03\_OpenMaterialIssueFacility | 2.35 | 0.176 | 0.554 | 234 |
| MaterialIssueWithSubstituteProduct\_04\_EnterFactory | 0.515 | 0.059 | 0.145 | 234 |
| MaterialIssueWithSubstituteProduct\_05\_EnterJobNumber | 1.327 | 0.091 | 0.136 | 234 |
| MaterialIssueWithSubstituteProduct\_06\_EnterProcessStage | 1.763 | 0.167 | 0.38 | 234 |
| MaterialIssueWithSubstituteProduct\_07\_DoubleClickOnNonDCLineIntheGrid | 1.382 | 0.092 | 0.172 | 234 |
| MaterialIssueWithSubstituteProduct\_08\_ClickSubstitute | 0.849 | 0.075 | 0.181 | 234 |
| MaterialIssueWithSubstituteProduct\_09\_ClickTab | 1.221 | 0.118 | 0.19 | 234 |
| MaterialIssueWithSubstituteProduct\_10\_EnterWarehouse | 0.482 | 0.046 | 0.167 | 234 |
| MaterialIssueWithSubstituteProduct\_11\_EnterProduct | 0.711 | 0.071 | 0.188 | 234 |
| MaterialIssueWithSubstituteProduct\_12\_ExitForward | 1.215 | 0.104 | 0.184 | 234 |
| MaterialIssueWithSubstituteProduct\_13\_ClickNOInCloseLineAfterIssue | 0.794 | 0.102 | 0.246 | 234 |
| MaterialIssueWithSubstituteProduct\_14\_ClickYes | 1.164 | 0.141 | 0.453 | 234 |
| MaterialIssueWithSubstituteProduct\_15\_DoubleClickOnLineInTheReduceLotsGrid | 1.57 | 0.134 | 0.213 | 234 |
| MaterialIssueWithSubstituteProduct\_16\_ExitForward | 0.519 | 0.074 | 0.197 | 234 |
| MaterialIssueWithSubstituteProduct\_17\_ClickYes | 1.202 | 0.119 | 0.393 | 234 |
| MaterialIssueWithSubstituteProduct\_18\_DoubleClickOnLineInTheSelectBinGrid | 1.959 | 0.147 | 0.255 | 234 |
| MaterialIssueWithSubstituteProduct\_19\_ExitForward | 1.085 | 0.114 | 0.209 | 234 |
| MaterialIssueWithSubstituteProduct\_20\_ClickYes | 2.296 | 0.214 | 0.409 | 234 |
| MaterialIssueWithSubstituteProduct\_21\_ExitForward | 1.935 | 0.2 | 0.596 | 234 |
| MaterialIssueWithSubstituteProduct\_22\_ExitForward | 2.275 | 0.27 | 0.806 | 234 |
| MaterialIssueWithSubstituteProduct\_23\_ExitForward | 3.849 | 1.093 | 2.575 | 234 |
| MaterialIssueWithSubstituteProduct\_24\_ExitBackward | 2.041 | 0.156 | 0.374 | 234 |
| MaterialIssueWithSubstituteProduct\_25\_Logout | 0.575 | 0.057 | 0.575 | 2 |
| ModifyDatesInPOHeader\_01\_Launch | 0.445 | 0.024 | 0.445 | 2 |
| ModifyDatesInPOHeader\_02\_Login | 4.752 | 0.541 | 4.752 | 2 |
| ModifyDatesInPOHeader\_03\_Open\_CreatePOFacility | 2.496 | 0.219 | 0.699 | 237 |
| ModifyDatesInPOHeader\_04\_Click\_ModifyAnExistingOrder | 0.994 | 0.107 | 0.191 | 237 |
| ModifyDatesInPOHeader\_05\_Enter\_Division | 0.822 | 0.081 | 0.156 | 237 |
| ModifyDatesInPOHeader\_06\_Enter\_PONumber | 2.371 | 0.218 | 0.726 | 237 |
| ModifyDatesInPOHeader\_07\_Click\_OrderDates | 0.519 | 0.057 | 0.15 | 237 |
| ModifyDatesInPOHeader\_08\_Click\_NoButton | 1.252 | 0.106 | 0.164 | 237 |
| ModifyDatesInPOHeader\_09\_Enter\_OrderDate | 1.333 | 0.108 | 0.159 | 237 |
| ModifyDatesInPOHeader\_10\_Enter\_RequiredDate | 4.828 | 0.331 | 0.178 | 237 |
| ModifyDatesInPOHeader\_11\_Enter\_PromiseDate | 1.095 | 0.11 | 0.175 | 237 |
| ModifyDatesInPOHeader\_12\_Click\_YesButtonInUpdateLineDates | 0.811 | 0.071 | 0.176 | 237 |
| ModifyDatesInPOHeader\_13\_Click\_YesButton | 1.638 | 0.144 | 0.161 | 237 |
| ModifyDatesInPOHeader\_14\_Click\_NextOrder | 2.033 | 0.166 | 0.653 | 237 |
| ModifyDatesInPOHeader\_15\_Click\_Exit | 1.312 | 0.138 | 0.405 | 237 |
| ModifyDatesInPOHeader\_16\_Logout | 0.463 | 0.006 | 0.463 | 2 |
| MultiLineTransaction\_01\_Launch | 0.496 | 0.036 | 0.496 | 2 |
| MultiLineTransaction\_02\_Login | 4.582 | 0.355 | 4.582 | 2 |
| MultiLineTransaction\_03\_Open\_MultiLineTransactionFacility | 2.263 | 0.262 | 0.638 | 216 |
| MultiLineTransaction\_04\_Enter\_MovementCode | 0.956 | 0.086 | 0.136 | 216 |
| MultiLineTransaction\_05\_Click\_YesButton | 1.096 | 0.125 | 0.336 | 216 |
| MultiLineTransaction\_06\_Click\_InsertIcon | 0.806 | 0.082 | 0.176 | 216 |
| MultiLineTransaction\_07\_Enter\_Warehouse | 0.626 | 0.059 | 0.165 | 216 |
| MultiLineTransaction\_08\_Enter\_Product | 1.012 | 0.109 | 0.255 | 216 |
| MultiLineTransaction\_09\_Click\_UseAnExistingLotCode | 1.512 | 0.133 | 0.232 | 216 |
| MultiLineTransaction\_10\_Enter\_LotNumber | 1.604 | 0.121 | 0.217 | 216 |
| MultiLineTransaction\_11\_Click\_Yes | 0.706 | 0.072 | 0.182 | 216 |
| MultiLineTransaction\_12\_Enter\_BinLocation | 1.192 | 0.126 | 0.198 | 216 |
| MultiLineTransaction\_13\_Enter\_StockQuantity | 0.91 | 0.098 | 0.195 | 216 |
| MultiLineTransaction\_14\_Click\_Yes | 1.713 | 0.135 | 0.448 | 216 |
| MultiLineTransaction\_15\_Click\_ExitBackward | 2.121 | 0.228 | 0.376 | 216 |
| MultiLineTransaction\_16\_Click\_ExitForward | 1.171 | 0.11 | 0.401 | 216 |
| MultiLineTransaction\_17\_Click\_ExitBackward | 1.56 | 0.138 | 0.39 | 216 |
| MultiLineTransaction\_18\_LogOut | 0.751 | 0.102 | 0.751 | 2 |
| NonDCLotConversion\_01\_Launch | 0.442 | 0 | 0.442 | 1 |
| NonDCLotConversion\_02\_Login | 4.144 | 0 | 4.144 | 1 |
| NonDCLotConversion\_03\_Open\_LotConversionFacility | 1.523 | 0.187 | 0.688 | 121 |
| NonDCLotConversion\_04\_Enter\_Warehouse | 0.879 | 0.092 | 0.17 | 121 |
| NonDCLotConversion\_05\_Enter\_Product | 0.516 | 0.056 | 0.135 | 121 |
| NonDCLotConversion\_06\_Click\_YesButton | 1.261 | 0.145 | 0.342 | 121 |
| NonDCLotConversion\_07\_Click\_InsertIcon | 0.418 | 0.039 | 0.185 | 121 |
| NonDCLotConversion\_08\_Enter\_LotNumber | 0.372 | 0.039 | 0.165 | 121 |
| NonDCLotConversion\_09\_Enter\_Bin | 1.364 | 0.121 | 0.174 | 121 |
| NonDCLotConversion\_10\_Enter\_MovementQuantity | 0.728 | 0.078 | 0.217 | 121 |
| NonDCLotConversion\_11\_Click\_ExitBackward | 0.955 | 0.09 | 0.271 | 121 |
| NonDCLotConversion\_12\_Click\_ExitForward | 1.991 | 0.173 | 0.45 | 121 |
| NonDCLotConversion\_13\_Click\_InsertIcon | 0.502 | 0.068 | 0.193 | 121 |
| NonDCLotConversion\_14\_Click\_Tab | 0.458 | 0.065 | 0.184 | 121 |
| NonDCLotConversion\_15\_Click\_UseanExistingLot | 1.407 | 0.129 | 0.18 | 121 |
| NonDCLotConversion\_16\_Enter\_Lot | 0.809 | 0.077 | 0.19 | 121 |
| NonDCLotConversion\_17\_Click\_YesButton | 0.749 | 0.069 | 0.152 | 121 |
| NonDCLotConversion\_18\_Enter\_MovementQuantity | 0.866 | 0.108 | 0.204 | 121 |
| NonDCLotConversion\_19\_Click\_ExitBackward | 0.785 | 0.097 | 0.341 | 121 |
| NonDCLotConversion\_20\_Click\_ExitForward | 1.257 | 0.157 | 0.404 | 121 |
| NonDCLotConversion\_21\_Click\_YesButton | 1.123 | 0.107 | 0.418 | 121 |
| NonDCLotConversion\_22\_Enter\_Bin | 0.911 | 0.124 | 0.386 | 121 |
| NonDCLotConversion\_23\_DoubleClickOntheLine | 1.308 | 0.136 | 0.216 | 121 |
| NonDCLotConversion\_24\_Enter\_MovementQuantity | 1.208 | 0.173 | 0.536 | 121 |
| NonDCLotConversion\_25\_Click\_ExitForward | 2.165 | 0.314 | 0.762 | 121 |
| NonDCLotConversion\_26\_Click\_ExitBackward | 2.203 | 0.264 | 0.473 | 121 |
| NonDCLotConversion\_27\_Logout | 0.526 | 0 | 0.526 | 1 |
| PartialJobClose\_01\_Launch | 0.447 | 0.018 | 0.447 | 2 |
| PartialJobClose\_02\_Login | 5.807 | 0.98 | 5.807 | 2 |
| PartialJobClose\_03\_Open\_PartialJobCloseFacility | 1.92 | 0.202 | 0.674 | 235 |
| PartialJobClose\_04\_Enter\_Factory | 1.807 | 0.149 | 0.186 | 235 |
| PartialJobClose\_05\_Enter\_JobNumber | 0.818 | 0.08 | 0.206 | 235 |
| PartialJobClose\_06\_DoubleClickOnLine | 2.199 | 0.159 | 0.521 | 235 |
| PartialJobClose\_07\_Enter\_Lot | 1.09 | 0.106 | 0.167 | 235 |
| PartialJobClose\_08\_Click\_Tab | 1.066 | 0.133 | 0.233 | 235 |
| PartialJobClose\_09\_Click\_Tab1 | 1.098 | 0.128 | 0.158 | 235 |
| PartialJobClose\_10\_Enter\_Bin | 1.457 | 0.154 | 0.542 | 235 |
| PartialJobClose\_11\_ExitBackward | 1.628 | 0.161 | 0.428 | 235 |
| PartialJobClose\_12\_Logout | 0.664 | 0.059 | 0.664 | 2 |
| POPReceiving\_01\_Launch | 0.482 | 0.03 | 0.482 | 2 |
| POPReceiving\_02\_Login | 5.02 | 0.477 | 5.02 | 2 |
| POPReceiving\_03\_Open\_POPRecevingFacility | 1.99 | 0.198 | 0.652 | 213 |
| POPReceiving\_04\_Enter\_PONumber | 1.766 | 0.167 | 0.215 | 213 |
| POPReceiving\_05\_Enter\_Product | 1.129 | 0.143 | 0.27 | 213 |
| POPReceiving\_06\_Enter\_Lot | 0.901 | 0.07 | 0.155 | 213 |
| POPReceiving\_07\_ExitForward | 0.847 | 0.081 | 0.173 | 213 |
| POPReceiving\_08\_Enter\_Quantity | 1.375 | 0.137 | 0.199 | 213 |
| POPReceiving\_09\_Enter\_LPN | 1.25 | 0.133 | 0.227 | 213 |
| POPReceiving\_10\_Enter\_Bin | 1.167 | 0.138 | 0.197 | 213 |
| POPReceiving\_11\_Click\_Update | 2.431 | 0.18 | 0.864 | 213 |
| POPReceiving\_12\_Click\_ExitBackward | 2.144 | 0.19 | 0.382 | 213 |
| POPReceiving\_13\_Logout | 0.852 | 0.003 | 0.852 | 2 |
| PurchaseOrder\_01\_Launch | 0.421 | 0.006 | 0.421 | 2 |
| PurchaseOrder\_02\_Login | 3.781 | 0.094 | 3.781 | 2 |
| PurchaseOrder\_03\_OpenPOFacility | 2.563 | 0.26 | 0.606 | 294 |
| PurchaseOrder\_04\_Click\_EnterNewOrder | 1.005 | 0.095 | 0.146 | 294 |
| PurchaseOrder\_05\_EnterDivision | 1.834 | 0.159 | 0.152 | 294 |
| PurchaseOrder\_06\_EnterSupplier | 1.211 | 0.138 | 0.502 | 294 |
| PurchaseOrder\_07\_Click\_OrderLines | 1.303 | 0.148 | 0.557 | 294 |
| PurchaseOrder\_08\_Click\_Insert | 0.799 | 0.081 | 0.176 | 294 |
| PurchaseOrder\_09\_Click\_Tab | 0.973 | 0.078 | 0.18 | 294 |
| PurchaseOrder\_10\_Enter\_Product1 | 1.73 | 0.158 | 0.546 | 294 |
| PurchaseOrder\_11\_Enter\_Warehouse1 | 1.759 | 0.12 | 0.51 | 294 |
| PurchaseOrder\_12\_Enter\_Quantity1 | 1.722 | 0.126 | 0.555 | 294 |
| PurchaseOrder\_13\_Click\_Tab2 | 0.982 | 0.083 | 0.212 | 294 |
| PurchaseOrder\_14\_Enter\_Product2 | 1.63 | 0.138 | 0.507 | 294 |
| PurchaseOrder\_15\_Enter\_Warehouse2 | 1.656 | 0.146 | 0.519 | 294 |
| PurchaseOrder\_16\_Enter\_Quantity2 | 1.308 | 0.104 | 0.577 | 294 |
| PurchaseOrder\_17\_ExitBackward | 1.98 | 0.207 | 0.638 | 294 |
| PurchaseOrder\_18\_ExitForward | 1.342 | 0.151 | 0.351 | 294 |
| PurchaseOrder\_19\_Click\_NextOrder | 1.714 | 0.148 | 0.59 | 294 |
| PurchaseOrder\_20\_Click\_Exit | 0.758 | 0.069 | 0.341 | 294 |
| PurchaseOrder\_21\_Logout | 0.833 | 0.096 | 0.833 | 2 |
| SalesOrder\_01\_Launch | 0.516 | 0.046 | 0.516 | 3 |
| SalesOrder\_02\_Login | 4.891 | 0.61 | 4.891 | 3 |
| SalesOrder\_03\_OpenFacility | 3.305 | 0.308 | 0.679 | 408 |
| SalesOrder\_04\_EnterNewOrder | 1.464 | 0.134 | 0.157 | 408 |
| SalesOrder\_05\_EnterDivision | 1.37 | 0.102 | 0.166 | 408 |
| SalesOrder\_07\_EnterCustomer | 1.273 | 0.113 | 0.486 | 408 |
| SalesOrder\_08\_EnterCustomerPO | 1.006 | 0.082 | 0.219 | 408 |
| SalesOrder\_09\_ClickOnLines | 0.973 | 0.116 | 0.573 | 408 |
| SalesOrder\_10\_ClickOnInsert | 1.396 | 0.088 | 0.172 | 408 |
| SalesOrder\_11\_ClickOnTab\_1 | 0.911 | 0.068 | 0.189 | 408 |
| SalesOrder\_12\_EnterProduct\_1 | 3.049 | 0.293 | 1.649 | 408 |
| SalesOrder\_13\_EnterQuantity\_1 | 2.065 | 0.117 | 0.615 | 408 |
| SalesOrder\_14\_ClickOnTab\_2 | 1.404 | 0.088 | 0.177 | 408 |
| SalesOrder\_15\_EnterProduct\_2 | 3.427 | 0.382 | 2.214 | 408 |
| SalesOrder\_16\_EnterQuantity\_2 | 1.324 | 0.103 | 0.674 | 408 |
| SalesOrder\_17\_ExitBackward | 1.754 | 0.141 | 0.571 | 408 |
| SalesOrder\_18\_ExitForward | 1.376 | 0.14 | 0.369 | 408 |
| SalesOrder\_19\_ClickOnNextOrder | 2.487 | 0.194 | 0.667 | 408 |
| SalesOrder\_20\_ExitBackward\_1 | 1.393 | 0.121 | 0.144 | 408 |
| SalesOrder\_21\_ClickOnExit | 1.748 | 0.135 | 0.369 | 408 |
| SalesOrder\_22\_Logout | 0.622 | 0.013 | 0.622 | 3 |
| StageCountAndApproveCount\_01\_Launch | 0.654 | 0.135 | 0.654 | 2 |
| StageCountAndApproveCount\_02\_Login | 4.433 | 0.184 | 4.433 | 2 |
| StageCountAndApproveCount\_03\_OpenStageCountFacility | 2.685 | 0.242 | 0.637 | 200 |
| StageCountAndApproveCount\_04\_Enter\_Factory | 1.478 | 0.124 | 0.164 | 200 |
| StageCountAndApproveCount\_05\_Enter\_Job | 0.843 | 0.097 | 0.193 | 200 |
| StageCountAndApproveCount\_06\_Enter\_ProcessStage | 1.679 | 0.188 | 0.29 | 200 |
| StageCountAndApproveCount\_07\_Enter\_DoubleClickOnLine | 2.5 | 0.275 | 0.634 | 200 |
| StageCountAndApproveCount\_08\_Enter\_QuantityCount | 1.223 | 0.161 | 0.318 | 200 |
| StageCountAndApproveCount\_09\_ExitForward | 1.237 | 0.095 | 0.159 | 200 |
| StageCountAndApproveCount\_10\_ExitBackward | 1.077 | 0.127 | 0.428 | 200 |
| StageCountAndApproveCount\_11\_OpenApproveCountFacility | 1.434 | 0.128 | 0.58 | 200 |
| StageCountAndApproveCount\_12\_Enter\_Factory | 1.459 | 0.116 | 0.175 | 200 |
| StageCountAndApproveCount\_13\_Enter\_Job | 0.751 | 0.082 | 0.159 | 200 |
| StageCountAndApproveCount\_14\_OpenCountRunNumberLOV | 1.819 | 0.177 | 0.499 | 200 |
| StageCountAndApproveCount\_15\_SelectOption | 1.338 | 0.138 | 0.126 | 200 |
| StageCountAndApproveCount\_16\_Submit | 2.042 | 0.193 | 0.196 | 200 |
| StageCountAndApproveCount\_17\_Click\_Yes | 1.21 | 0.109 | 0.166 | 200 |
| StageCountAndApproveCount\_18\_Click\_UpdateNow | 1.871 | 0.133 | 0.389 | 200 |
| StageCountAndApproveCount\_19\_Logout | 0.774 | 0.105 | 0.774 | 2 |
| TraceCost\_01\_Launch | 0.662 | 0.121 | 0.662 | 2 |
| TraceCost\_02\_Login | 4.356 | 0.012 | 4.356 | 2 |
| TraceCost\_03\_Open\_TraceCostFacility | 2.268 | 0.316 | 0.883 | 46 |
| TraceCost\_04\_Enter\_Warehouse | 1.51 | 0.221 | 0.249 | 46 |
| TraceCost\_05\_Enter\_Product | 0.879 | 0.14 | 0.29 | 46 |
| TraceCost\_06\_Open\_CostTrace | 2.774 | 0.306 | 1.687 | 46 |
| TraceCost\_07\_Click\_ExitForward | 0.977 | 0.117 | 0.644 | 46 |
| TraceCost\_08\_Click\_ExitForward | 0.838 | 0.148 | 0.472 | 46 |
| TraceCost\_09\_Click\_ExitBackward | 0.862 | 0.126 | 0.337 | 46 |
| TraceCost\_10\_Logout | 0.592 | 0.03 | 0.592 | 2 |
| WarehouseTransfer\_01\_Launch | 0.442 | 0.043 | 0.442 | 2 |
| WarehouseTransfer\_02\_Login | 4.437 | 0.219 | 4.437 | 2 |
| WarehouseTransfer\_03\_Open\_WarehouseTransferFacility | 4.741 | 0.33 | 0.695 | 322 |
| WarehouseTransfer\_04\_Enter\_FromWarehouse | 1.485 | 0.137 | 0.179 | 322 |
| WarehouseTransfer\_05\_Enter\_ToWarehouse | 1.254 | 0.124 | 0.173 | 322 |
| WarehouseTransfer\_06\_Click\_Yes | 1.127 | 0.075 | 0.15 | 322 |
| WarehouseTransfer\_07\_Enter\_Product | 1.193 | 0.103 | 0.152 | 322 |
| WarehouseTransfer\_08\_Enter\_InventoryStatus | 1.075 | 0.089 | 0.149 | 322 |
| WarehouseTransfer\_09\_Enter\_Lot | 1.736 | 0.13 | 0.181 | 322 |
| WarehouseTransfer\_10\_Enter\_Bin | 1.791 | 0.114 | 0.177 | 322 |
| WarehouseTransfer\_11\_Click\_Yes | 1.087 | 0.085 | 0.225 | 322 |
| WarehouseTransfer\_12\_DoubleClickonLine | 1.308 | 0.104 | 0.223 | 322 |
| WarehouseTransfer\_13\_Enter\_Lot | 0.512 | 0.057 | 0.188 | 322 |
| WarehouseTransfer\_14\_Enter\_Quantity | 0.829 | 0.089 | 0.199 | 322 |
| WarehouseTransfer\_15\_Enter\_Bin | 1.443 | 0.155 | 0.28 | 322 |
| WarehouseTransfer\_16\_ExitForward | 0.805 | 0.072 | 0.179 | 322 |
| WarehouseTransfer\_17\_Click\_TransferAllItems | 6.705 | 0.72 | 1.34 | 322 |
| WarehouseTransfer\_18\_ExitForward | 1.641 | 0.139 | 0.382 | 322 |
| WarehouseTransfer\_19\_CloseFacility | 1.335 | 0.128 | 0.171 | 322 |
| WarehouseTransfer\_20\_Click\_Ok | 1.925 | 0.175 | 0.402 | 322 |
| WarehouseTransfer\_21\_Logout | 0.641 | 0.019 | 0.641 | 2 |

**4.1.5.Graphs:-**

* **App Server CPU utilization**



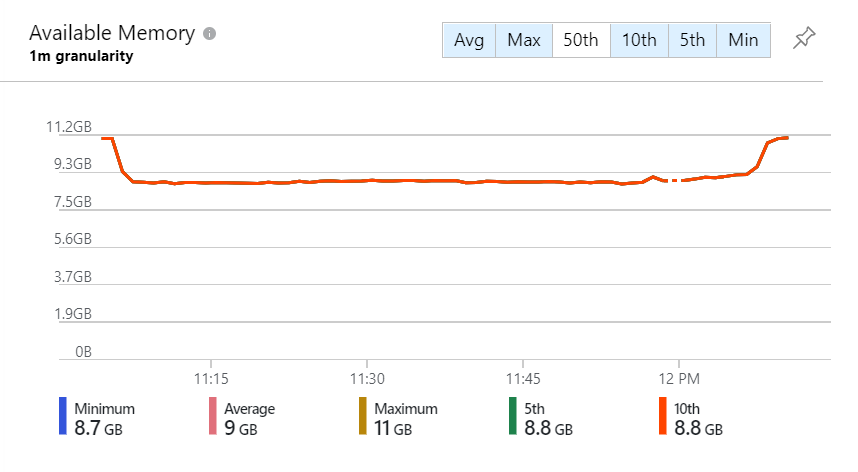
* **DB Server CPU Utilization**



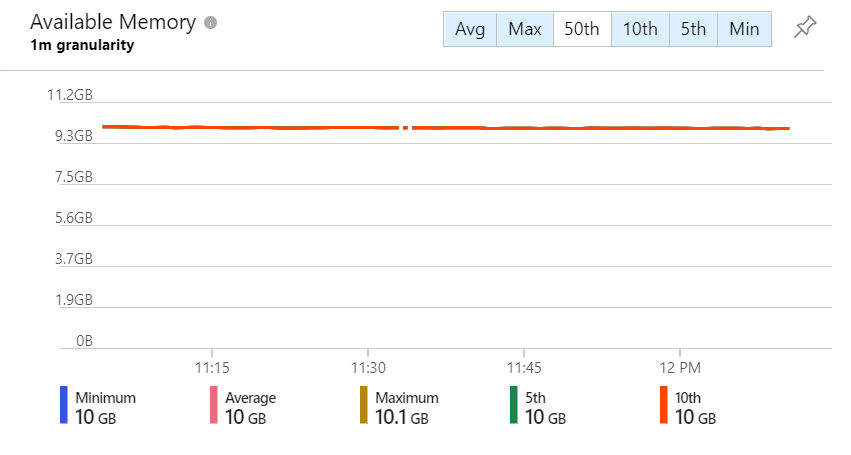
* **CPU Utilization:-**

|  |  |  |  |
| --- | --- | --- | --- |
| **%** | **Min** | **Avg** | **Max** |
| **App Server** | **0.22** | **45.13** | **75.41** |
| **DB Server** | **1.55** | **9.13** | **26.38** |

* **App Server Memory Availability**



* **DB Server Memory Availability**



* **Memory Utilization**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **%** | **Max** | **Min** | **Utilize** | **%Utilization** |
| **App Server** | 11GB | 8.7GB | 2.3 | 20.91% |
| **DB Server** | 10.1GB | 10GB | 0.1 | 1.0% |

* **Hits Per second and Average Throughput**

|  |  |
| --- | --- |
| Action Item | Load Test 01 |
| Average Hits Per Seconds | 33.083 |
| Average Throughput (Bytes/Second) | 374,238.643 |

# ConclusionS

* We achieved 100% pass transaction in this release.
* This is the first time we were doing Performance testing for few scenarios and good with the results.
* We achieved 5993 transactions per hour.
* We are good with CPU And Memory Utilization.
* Transaction Response times are degraded when compared to the previous Release.

# RISKS

* The response times of login transactions were observed to be high.
* Achieved Total Transaction count for GRN Creation scenario use cases is less.
* We didn’t get the license for load runner tool so we had modified the user distribution.