

ARENA Simulation Results
Valentina - License: STUDENT

Summary for Replication 1 of 10

Project: Proceso productivo Pintura vinílica blanca tipo I (exterio Run execution
date :10/16/2023
Analyst: Valentina Ortiz Model revision
date:10/16/2023

Replication ended at time : 10080.0 Minutes
Base Time Units: Minutes

TALLY VARIABLES

| Identifier | Average | Half Width | Minimum | |
|---|---------|------------|---------|--------|
| Maximum Observations | | | | |
| <hr/> | | | | |
| Alistamiento MP.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalTimePerEntity 288 | 9.9516 | (Insuf) | 2.3203 | 19.006 |
| Alistamiento MP.VATimePerEntity 288 | 9.9516 | (Insuf) | 2.3203 | 19.006 |
| Envasado y filtrado.TotalTimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Envasado y filtrado.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.VATimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Alistamiento MP.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP.VATime 0 | -- | -- | -- | -- |
| MP.NVATime 0 | -- | -- | -- | -- |
| MP.WaitTime | -- | -- | -- | -- |

| | | | | |
|-----------------------------------|--------|---------|--------|--------|
| 0 | | | | |
| MP.TranTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.OtherTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.TotalTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.VACost | -- | -- | -- | -- |
| 0 | | | | |
| MP.NVACost | -- | -- | -- | -- |
| 0 | | | | |
| MP.WaitCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.TranCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.OtherCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.TotalCost | -- | -- | -- | -- |
| 0 | | | | |
| MP2.VATime | 17.951 | (Insuf) | 10.320 | 27.006 |
| 288 | | | | |
| MP2.NVATime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.WaitTime | 4.0216 | (Insuf) | .14455 | 7.0758 |
| 288 | | | | |
| MP2.TranTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.OtherTime | 17.888 | (Insuf) | 11.384 | 24.005 |
| 288 | | | | |
| MP2.TotalTime | 30.849 | (Insuf) | 21.227 | 41.534 |
| 288 | | | | |
| MP2.VACost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.NVACost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.WaitCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.TranCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.OtherCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.TotalCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Premezcla.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Premezcla.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Alistamiento MP.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 289 | | | | |
| Alistamiento MP.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |

| | | | | |
|---------------------------------------|--------|---------|--------|--------|
| 289 | | | | |
| Mezcla2.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Mezcla2.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Unionpreymezcla.Queue2.WaitingTime | .00248 | (Insuf) | .00000 | .71403 |
| 288 | | | | |
| Unionpreymezcla.Queue2.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Unionpreymezcla.Queue1.WaitingTime | 4.0192 | (Insuf) | .00000 | 7.0758 |
| 288 | | | | |
| Unionpreymezcla.Queue1.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Envasado y filtrado.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Envasado y filtrado.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |

DISCRETE-CHANGE VARIABLES

| Identifier | Average | Half Width | Minimum | |
|------------------------------------|---------|------------|---------|--------|
| Maximum Final Value | | | | |
| <hr/> | | | | |
| MP.WIP | .88142 | .00946 | .00000 | 3.0000 |
| 1.0000 | | | | |
| MP2.WIP | .93666 | .01717 | .00000 | 3.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberBusy | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.Utilization | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rBascula.NumberBusy | .28433 | .00987 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.Utilization | .28433 | .00987 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.NumberBusy | .36851 | .00988 | .00000 | 1.0000 |
| .00000 | | | | |
| rMaqmezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.Utilization | .36851 | .00988 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberBusy | .14267 | .00439 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |

| | | | | |
|---|-----------|---------|--------|--------|
| 1.0000 | | | | |
| rPremezcla.Utilization | .14267 | .00439 | .00000 | 1.0000 |
| .00000 | | | | |
| Premezcla.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Alistamiento MP.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Mezcla2.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Unionpreymezcla.Queue2.NumberInQueue | 7.0837E-5 | (Insuf) | .00000 | 1.0000 |
| .00000 | | | | |
| Unionpreymezcla.Queue1.NumberInQueue | .11483 | .00547 | .00000 | 1.0000 |
| .00000 | | | | |
| Envasado y filtrado.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |

OUTPUTS

| Identifíer | Value |
|---|--------|
| Alistamiento MP Number Out | 288.00 |
| Alistamiento MP Accum VA Time | 2866.0 |
| Envasado y filtrado Total Accum Time | 2304.0 |
| Alistamiento MP Number In | 289.00 |
| Envasado y filtrado Accum VA Cost | .00000 |
| Envasado y filtrado Accum VA Time | 2304.0 |
| Alistamiento MP Accum VA Cost | .00000 |
| Envasado y filtrado Accum Wait Time | .00000 |
| Alistamiento MP Accum Wait Cost | .00000 |
| Alistamiento MP Accum Wait Time | .00000 |
| Alistamiento MP Total Accum Time | 2866.0 |
| Envasado y filtrado Number Out | 288.00 |
| Envasado y filtrado Number In | 288.00 |
| Alistamiento MP Total Accum Cost | .00000 |
| Envasado y filtrado Total Accum Cost | .00000 |
| Envasado y filtrado Accum Wait Cost | .00000 |
| MP.NumberIn | 577.00 |
| MP.NumberOut | 576.00 |
| MP2.NumberIn | 576.00 |
| MP2.NumberOut | 576.00 |
| rEvansadoyFiltrado.NumberSeized | 288.00 |
| rEvansadoyFiltrado.ScheduledUtilization | .22857 |
| rEvansadoyFiltrado.BusyCost | .00000 |
| rEvansadoyFiltrado.IdleCost | .00000 |
| rEvansadoyFiltrado.UsageCost | .00000 |
| rBascula.NumberSeized | 289.00 |
| rBascula.ScheduledUtilization | .28433 |
| rBascula.BusyCost | .00000 |
| rBascula.IdleCost | .00000 |

| | |
|---------------------------------|--------|
| rBascula.UsageCost | .00000 |
| rMaqmezcla.NumberSeized | 288.00 |
| rMaqmezcla.ScheduledUtilization | .36851 |
| rMaqmezcla.BusyCost | .00000 |
| rMaqmezcla.IdleCost | .00000 |
| rMaqmezcla.UsageCost | .00000 |
| rPremezcla.NumberSeized | 288.00 |
| rPremezcla.ScheduledUtilization | .14267 |
| rPremezcla.BusyCost | .00000 |
| rPremezcla.IdleCost | .00000 |
| rPremezcla.UsageCost | .00000 |
| All Entities.VACost | .00000 |
| All Entities.NVACost | .00000 |
| All Entities.WaitCost | .00000 |
| All Entities.TranCost | .00000 |
| All Entities.OtherCost | .00000 |
| All Entities.TotalCost | .00000 |
| All Resources.BusyCost | .00000 |
| All Resources.IdleCost | .00000 |
| All Resources.UsageCost | .00000 |
| All Resources.TotalCost | .00000 |
| System.TotalCost | .00000 |
| System.NumberOut | 288.00 |

Beginning replication 2 of 10

ARENA Simulation Results
Valentina - License: STUDENT

Summary for Replication 2 of 10

| | |
|---|----------------|
| Project: Proceso productivo Pintura vinílica blanca tipo I (exterio | Run execution |
| date :10/16/2023 | |
| Analyst: Valentina Ortiz | Model revision |
| date:10/16/2023 | |

Replication ended at time : 10080.0 Minutes
Base Time Units: Minutes

TALLY VARIABLES

| Identifier | Average | Half Width | Minimum | |
|---------------------------------------|---------|------------|---------|--------|
| Maximum Observations | | | | |
| Alistamiento MP.WaitTimePerEntity | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Envasado y filtrado.WaitCostPerEntity | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |

| | | | | |
|---|--------|---------|--------|--------|
| Alistamiento MP.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalTimePerEntity 288 | 9.8415 | (Insuf) | .00000 | 19.956 |
| Alistamiento MP.VATimePerEntity 288 | 9.8415 | (Insuf) | .00000 | 19.956 |
| Envasado y filtrado.TotalTimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Envasado y filtrado.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.VATimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Alistamiento MP.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP.VATime 0 | -- | -- | -- | -- |
| MP.NVATime 0 | -- | -- | -- | -- |
| MP.WaitTime 0 | -- | -- | -- | -- |
| MP.TranTime 0 | -- | -- | -- | -- |
| MP.OtherTime 0 | -- | -- | -- | -- |
| MP.TotalTime 0 | -- | -- | -- | -- |
| MP.VACost 0 | -- | -- | -- | -- |
| MP.NVACost 0 | -- | -- | -- | -- |
| MP.WaitCost 0 | -- | -- | -- | -- |
| MP.TranCost 0 | -- | -- | -- | -- |
| MP.OtherCost 0 | -- | -- | -- | -- |
| MP.TotalCost 0 | -- | -- | -- | -- |
| MP2.VATime 288 | 17.841 | (Insuf) | 8.0000 | 27.956 |
| MP2.NVATime 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.WaitTime 288 | 3.9766 | (Insuf) | .59967 | 7.4926 |

| | | | | |
|--|--------|---------|--------|--------|
| MP2.TranTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.OtherTime 288 | 17.969 | (Insuf) | 11.521 | 24.010 |
| MP2.TotalTime 288 | 30.792 | (Insuf) | 20.020 | 42.188 |
| MP2.VACost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.NVACost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.WaitCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.TranCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.OtherCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.TotalCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Premezcla.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Premezcla.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.Queue.WaitingTime 289 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.Queue.WaitingCost 289 | .00000 | (Insuf) | .00000 | .00000 |
| Mezcla2.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Mezcla2.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue2.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue2.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue1.WaitingTime 288 | 3.9766 | (Insuf) | .59967 | 7.4926 |
| Unionpremezcla.Queue1.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |

DISCRETE-CHANGE VARIABLES

| Identifier | Average | Half Width | Minimum |
|------------------------|---------|------------|---------|
| Maximum Final Value | | | |

| | | | | |
|---|--------|---------|--------|--------|
| MP.WIP | .87979 | .01250 | .00000 | 3.0000 |
| 1.0000 | | | | |
| MP2.WIP | .94021 | .02123 | .00000 | 3.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberBusy | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.Utilization | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rBascula.NumberBusy | .28119 | .01183 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.Utilization | .28119 | .01183 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.NumberBusy | .37003 | .01008 | .00000 | 1.0000 |
| .00000 | | | | |
| rMaqmezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.Utilization | .37003 | .01008 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberBusy | .14339 | .00383 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rPremezcla.Utilization | .14339 | .00383 | .00000 | 1.0000 |
| .00000 | | | | |
| Premezcla.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Alistamiento MP.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Mezcla2.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Unionpreymezcla.Queue2.NumberInQueue | .00000 | (Insuf) | .00000 | 1.0000 |
| .00000 | | | | |
| Unionpreymezcla.Queue1.NumberInQueue | .11362 | .00516 | .00000 | 1.0000 |
| .00000 | | | | |
| Envasado y filtrado.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |

OUTPUTS

| Identifier | Value |
|--------------------------------------|--------|
| Alistamiento MP Number Out | 288.00 |
| Alistamiento MP Accum VA Time | 2834.3 |
| Envasado y filtrado Total Accum Time | 2304.0 |
| Alistamiento MP Number In | 289.00 |

| | |
|---|--------|
| Envasado y filtrado Accum VA Cost | .00000 |
| Envasado y filtrado Accum VA Time | 2304.0 |
| Alistamiento MP Accum VA Cost | .00000 |
| Envasado y filtrado Accum Wait Time | .00000 |
| Alistamiento MP Accum Wait Cost | .00000 |
| Alistamiento MP Accum Wait Time | .00000 |
| Alistamiento MP Total Accum Time | 2834.3 |
| Envasado y filtrado Number Out | 288.00 |
| Envasado y filtrado Number In | 288.00 |
| Alistamiento MP Total Accum Cost | .00000 |
| Envasado y filtrado Total Accum Cost | .00000 |
| Envasado y filtrado Accum Wait Cost | .00000 |
| MP.NumberIn | 577.00 |
| MP.NumberOut | 576.00 |
| MP2.NumberIn | 576.00 |
| MP2.NumberOut | 576.00 |
| rEvansadoyFiltrado.NumberSeized | 288.00 |
| rEvansadoyFiltrado.ScheduledUtilization | .22857 |
| rEvansadoyFiltrado.BusyCost | .00000 |
| rEvansadoyFiltrado.IdleCost | .00000 |
| rEvansadoyFiltrado.UsageCost | .00000 |
| rBascula.NumberSeized | 289.00 |
| rBascula.ScheduledUtilization | .28119 |
| rBascula.BusyCost | .00000 |
| rBascula.IdleCost | .00000 |
| rBascula.UsageCost | .00000 |
| rMaqmezcla.NumberSeized | 288.00 |
| rMaqmezcla.ScheduledUtilization | .37003 |
| rMaqmezcla.BusyCost | .00000 |
| rMaqmezcla.IdleCost | .00000 |
| rMaqmezcla.UsageCost | .00000 |
| rPremezcla.NumberSeized | 288.00 |
| rPremezcla.ScheduledUtilization | .14339 |
| rPremezcla.BusyCost | .00000 |
| rPremezcla.IdleCost | .00000 |
| rPremezcla.UsageCost | .00000 |
| All Entities.VACost | .00000 |
| All Entities.NVACost | .00000 |
| All Entities.WaitCost | .00000 |
| All Entities.TranCost | .00000 |
| All Entities.OtherCost | .00000 |
| All Entities.TotalCost | .00000 |
| All Resources.BusyCost | .00000 |
| All Resources.IdleCost | .00000 |
| All Resources.UsageCost | .00000 |
| All Resources.TotalCost | .00000 |
| System.TotalCost | .00000 |
| System.NumberOut | 288.00 |

Beginning replication 3 of 10

ARENA Simulation Results
Valentina - License: STUDENT

Summary for Replication 3 of 10

Project: Proceso productivo Pintura vinílica blanca tipo I (exterio Run execution
date :10/16/2023
Analyst: Valentina Ortiz Model revision
date:10/16/2023

Replication ended at time : 10080.0 Minutes
Base Time Units: Minutes

TALLY VARIABLES

| Identifier | Average | Half Width | Minimum | |
|---|---------|------------|---------|--------|
| Maximum Observations | | | | |
| Alistamiento MP.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitCostPerEntity 287 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitTimePerEntity 287 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.TotalCostPerEntity 287 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalTimePerEntity 288 | 9.9256 | (Insuf) | 1.3512 | 18.542 |
| Alistamiento MP.VATimePerEntity 288 | 9.9256 | (Insuf) | 1.3512 | 18.542 |
| Envasado y filtrado.TotalTimePerEntity 287 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Envasado y filtrado.VACostPerEntity 287 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.VATimePerEntity 287 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Alistamiento MP.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP.VATime 0 | -- | -- | -- | -- |
| MP.NVATime 0 | -- | -- | -- | -- |
| MP.WaitTime | -- | -- | -- | -- |

| | | | | |
|-----------------------------------|--------|---------|--------|--------|
| 0 | | | | |
| MP.TranTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.OtherTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.TotalTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.VACost | -- | -- | -- | -- |
| 0 | | | | |
| MP.NVACost | -- | -- | -- | -- |
| 0 | | | | |
| MP.WaitCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.TranCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.OtherCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.TotalCost | -- | -- | -- | -- |
| 0 | | | | |
| MP2.VATime | 17.920 | (Insuf) | 9.3512 | 26.542 |
| 287 | | | | |
| MP2.NVATime | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.WaitTime | 3.9318 | (Insuf) | .18406 | 8.2818 |
| 287 | | | | |
| MP2.TranTime | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.OtherTime | 17.840 | (Insuf) | 12.254 | 23.965 |
| 287 | | | | |
| MP2.TotalTime | 30.736 | (Insuf) | 20.232 | 42.092 |
| 287 | | | | |
| MP2.VACost | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.NVACost | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.WaitCost | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.TranCost | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.OtherCost | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.TotalCost | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| Premezcla.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Premezcla.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Alistamiento MP.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 289 | | | | |
| Alistamiento MP.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |

| | | | | |
|---------------------------------------|--------|---------|--------|--------|
| 289 | | | | |
| Mezcla2.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Mezcla2.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Unionpreymezcla.Queue2.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Unionpreymezcla.Queue2.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Unionpreymezcla.Queue1.WaitingTime | 3.9288 | (Insuf) | .18406 | 8.2818 |
| 288 | | | | |
| Unionpreymezcla.Queue1.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Envasado y filtrado.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Envasado y filtrado.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |

DISCRETE-CHANGE VARIABLES

| Identifier | Average | Half Width | Minimum | |
|------------------------------------|---------|------------|---------|--------|
| Maximum Final Value | | | | |
| <hr/> | | | | |
| MP.WIP | .87860 | .01034 | .00000 | 3.0000 |
| 2.0000 | | | | |
| MP2.WIP | .93415 | .01751 | .00000 | 3.0000 |
| 2.0000 | | | | |
| rEvansadoyFiltrado.NumberBusy | .22852 | (Corr) | .00000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.Utilization | .22852 | (Corr) | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberBusy | .28359 | .00840 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.Utilization | .28359 | .00840 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.NumberBusy | .36649 | .01032 | .00000 | 1.0000 |
| .00000 | | | | |
| rMaqmezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.Utilization | .36649 | .01032 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberBusy | .14361 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |

| | | | | |
|---|--------|---------|--------|--------|
| 1.0000 | | | | |
| rPremezcla.Utilization | .14361 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| Premezcla.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Alistamiento MP.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Mezcla2.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Unionpreymezcla.Queue2.NumberInQueue | .00000 | (Insuf) | .00000 | 1.0000 |
| .00000 | | | | |
| Unionpreymezcla.Queue1.NumberInQueue | .11225 | .00387 | .00000 | 1.0000 |
| .00000 | | | | |
| Envasado y filtrado.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |

OUTPUTS

| Identifíer | Value |
|---|--------|
| Alistamiento MP Number Out | 288.00 |
| Alistamiento MP Accum VA Time | 2858.5 |
| Envasado y filtrado Total Accum Time | 2296.0 |
| Alistamiento MP Number In | 289.00 |
| Envasado y filtrado Accum VA Cost | .00000 |
| Envasado y filtrado Accum VA Time | 2296.0 |
| Alistamiento MP Accum VA Cost | .00000 |
| Envasado y filtrado Accum Wait Time | .00000 |
| Alistamiento MP Accum Wait Cost | .00000 |
| Alistamiento MP Accum Wait Time | .00000 |
| Alistamiento MP Total Accum Time | 2858.5 |
| Envasado y filtrado Number Out | 287.00 |
| Envasado y filtrado Number In | 288.00 |
| Alistamiento MP Total Accum Cost | .00000 |
| Envasado y filtrado Total Accum Cost | .00000 |
| Envasado y filtrado Accum Wait Cost | .00000 |
| MP.NumberIn | 577.00 |
| MP.NumberOut | 575.00 |
| MP2.NumberIn | 576.00 |
| MP2.NumberOut | 574.00 |
| rEvansadoyFiltrado.NumberSeized | 288.00 |
| rEvansadoyFiltrado.ScheduledUtilization | .22852 |
| rEvansadoyFiltrado.BusyCost | .00000 |
| rEvansadoyFiltrado.IdleCost | .00000 |
| rEvansadoyFiltrado.UsageCost | .00000 |
| rBascula.NumberSeized | 289.00 |
| rBascula.ScheduledUtilization | .28359 |
| rBascula.BusyCost | .00000 |
| rBascula.IdleCost | .00000 |

| | |
|---------------------------------|--------|
| rBascula.UsageCost | .00000 |
| rMaqmezcla.NumberSeized | 288.00 |
| rMaqmezcla.ScheduledUtilization | .36649 |
| rMaqmezcla.BusyCost | .00000 |
| rMaqmezcla.IdleCost | .00000 |
| rMaqmezcla.UsageCost | .00000 |
| rPremezcla.NumberSeized | 288.00 |
| rPremezcla.ScheduledUtilization | .14361 |
| rPremezcla.BusyCost | .00000 |
| rPremezcla.IdleCost | .00000 |
| rPremezcla.UsageCost | .00000 |
| All Entities.VACost | .00000 |
| All Entities.NVACost | .00000 |
| All Entities.WaitCost | .00000 |
| All Entities.TranCost | .00000 |
| All Entities.OtherCost | .00000 |
| All Entities.TotalCost | .00000 |
| All Resources.BusyCost | .00000 |
| All Resources.IdleCost | .00000 |
| All Resources.UsageCost | .00000 |
| All Resources.TotalCost | .00000 |
| System.TotalCost | .00000 |
| System.NumberOut | 287.00 |

Beginning replication 4 of 10

ARENA Simulation Results
Valentina - License: STUDENT

Summary for Replication 4 of 10

| | |
|---|----------------|
| Project: Proceso productivo Pintura vinílica blanca tipo I (exterio | Run execution |
| date :10/16/2023 | |
| Analyst: Valentina Ortiz | Model revision |
| date:10/16/2023 | |

Replication ended at time : 10080.0 Minutes
Base Time Units: Minutes

TALLY VARIABLES

| Identifier | Average | Half Width | Minimum | Maximum |
|--|---------|------------|---------|---------|
| Alistamiento MP.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |

| | | | | |
|---|--------|---------|--------|--------|
| Alistamiento MP.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalTimePerEntity 288 | 9.6198 | (Insuf) | .00000 | 17.891 |
| Alistamiento MP.VATimePerEntity 288 | 9.6198 | (Insuf) | .00000 | 17.891 |
| Envasado y filtrado.TotalTimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Envasado y filtrado.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.VATimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Alistamiento MP.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP.VATime 0 | -- | -- | -- | -- |
| MP.NVATime 0 | -- | -- | -- | -- |
| MP.WaitTime 0 | -- | -- | -- | -- |
| MP.TranTime 0 | -- | -- | -- | -- |
| MP.OtherTime 0 | -- | -- | -- | -- |
| MP.TotalTime 0 | -- | -- | -- | -- |
| MP.VACost 0 | -- | -- | -- | -- |
| MP.NVACost 0 | -- | -- | -- | -- |
| MP.WaitCost 0 | -- | -- | -- | -- |
| MP.TranCost 0 | -- | -- | -- | -- |
| MP.OtherCost 0 | -- | -- | -- | -- |
| MP.TotalCost 0 | -- | -- | -- | -- |
| MP2.VATime 288 | 17.619 | (Insuf) | 8.0000 | 25.891 |
| MP2.NVATime 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.WaitTime 288 | 3.9821 | (Insuf) | .27233 | 7.8952 |

| | | | | |
|--|--------|---------|--------|--------|
| MP2.TranTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.OtherTime 288 | 17.980 | (Insuf) | 11.831 | 24.657 |
| MP2.TotalTime 288 | 30.602 | (Insuf) | 21.941 | 40.838 |
| MP2.VACost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.NVACost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.WaitCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.TranCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.OtherCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.TotalCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Premezcla.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Premezcla.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.Queue.WaitingTime 289 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.Queue.WaitingCost 289 | .00000 | (Insuf) | .00000 | .00000 |
| Mezcla2.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Mezcla2.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue2.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue2.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue1.WaitingTime 288 | 3.9821 | (Insuf) | .27233 | 7.8952 |
| Unionpremezcla.Queue1.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |

DISCRETE-CHANGE VARIABLES

| Identifier | Average | Half Width | Minimum |
|------------------------|---------|------------|---------|
| Maximum Final Value | | | |

| | | | | |
|---|--------|---------|--------|--------|
| MP.WIP | .87434 | .01066 | .00000 | 3.0000 |
| 1.0000 | | | | |
| MP2.WIP | .94240 | .01824 | .00000 | 3.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberBusy | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.Utilization | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rBascula.NumberBusy | .27485 | .01024 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.Utilization | .27485 | .01024 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.NumberBusy | .37092 | .00878 | .00000 | 1.0000 |
| .00000 | | | | |
| rMaqmezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.Utilization | .37092 | .00878 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberBusy | .14281 | .00416 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rPremezcla.Utilization | .14281 | .00416 | .00000 | 1.0000 |
| .00000 | | | | |
| Premezcla.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Alistamiento MP.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Mezcla2.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Unionpreymezcla.Queue2.NumberInQueue | .00000 | (Insuf) | .00000 | 1.0000 |
| .00000 | | | | |
| Unionpreymezcla.Queue1.NumberInQueue | .11378 | .00521 | .00000 | 1.0000 |
| .00000 | | | | |
| Envasado y filtrado.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |

OUTPUTS

| Identifier | Value |
|--------------------------------------|--------|
| Alistamiento MP Number Out | 288.00 |
| Alistamiento MP Accum VA Time | 2770.5 |
| Envasado y filtrado Total Accum Time | 2304.0 |
| Alistamiento MP Number In | 289.00 |

| | |
|---|--------|
| Envasado y filtrado Accum VA Cost | .00000 |
| Envasado y filtrado Accum VA Time | 2304.0 |
| Alistamiento MP Accum VA Cost | .00000 |
| Envasado y filtrado Accum Wait Time | .00000 |
| Alistamiento MP Accum Wait Cost | .00000 |
| Alistamiento MP Accum Wait Time | .00000 |
| Alistamiento MP Total Accum Time | 2770.5 |
| Envasado y filtrado Number Out | 288.00 |
| Envasado y filtrado Number In | 288.00 |
| Alistamiento MP Total Accum Cost | .00000 |
| Envasado y filtrado Total Accum Cost | .00000 |
| Envasado y filtrado Accum Wait Cost | .00000 |
| MP.NumberIn | 577.00 |
| MP.NumberOut | 576.00 |
| MP2.NumberIn | 576.00 |
| MP2.NumberOut | 576.00 |
| rEvansadoyFiltrado.NumberSeized | 288.00 |
| rEvansadoyFiltrado.ScheduledUtilization | .22857 |
| rEvansadoyFiltrado.BusyCost | .00000 |
| rEvansadoyFiltrado.IdleCost | .00000 |
| rEvansadoyFiltrado.UsageCost | .00000 |
| rBascula.NumberSeized | 289.00 |
| rBascula.ScheduledUtilization | .27485 |
| rBascula.BusyCost | .00000 |
| rBascula.IdleCost | .00000 |
| rBascula.UsageCost | .00000 |
| rMaqmezcla.NumberSeized | 288.00 |
| rMaqmezcla.ScheduledUtilization | .37092 |
| rMaqmezcla.BusyCost | .00000 |
| rMaqmezcla.IdleCost | .00000 |
| rMaqmezcla.UsageCost | .00000 |
| rPremezcla.NumberSeized | 288.00 |
| rPremezcla.ScheduledUtilization | .14281 |
| rPremezcla.BusyCost | .00000 |
| rPremezcla.IdleCost | .00000 |
| rPremezcla.UsageCost | .00000 |
| All Entities.VACost | .00000 |
| All Entities.NVACost | .00000 |
| All Entities.WaitCost | .00000 |
| All Entities.TranCost | .00000 |
| All Entities.OtherCost | .00000 |
| All Entities.TotalCost | .00000 |
| All Resources.BusyCost | .00000 |
| All Resources.IdleCost | .00000 |
| All Resources.UsageCost | .00000 |
| All Resources.TotalCost | .00000 |
| System.TotalCost | .00000 |
| System.NumberOut | 288.00 |

Beginning replication 5 of 10

ARENA Simulation Results
Valentina - License: STUDENT

Summary for Replication 5 of 10

Project: Proceso productivo Pintura vinílica blanca tipo I (exterio Run execution
date :10/16/2023
Analyst: Valentina Ortiz Model revision
date:10/16/2023

Replication ended at time : 10080.0 Minutes
Base Time Units: Minutes

TALLY VARIABLES

| Identifier | Average | Half Width | Minimum | |
|---|---------|------------|---------|--------|
| Maximum Observations | | | | |
| Alistamiento MP.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalTimePerEntity 288 | 10.134 | (Insuf) | 3.1449 | 19.135 |
| Alistamiento MP.VATimePerEntity 288 | 10.134 | (Insuf) | 3.1449 | 19.135 |
| Envasado y filtrado.TotalTimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Envasado y filtrado.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.VATimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Alistamiento MP.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP.VATime 0 | -- | -- | -- | -- |
| MP.NVATime 0 | -- | -- | -- | -- |
| MP.WaitTime | -- | -- | -- | -- |

| | | | | |
|-----------------------------------|--------|---------|--------|--------|
| 0 | | | | |
| MP.TranTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.OtherTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.TotalTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.VACost | -- | -- | -- | -- |
| 0 | | | | |
| MP.NVACost | -- | -- | -- | -- |
| 0 | | | | |
| MP.WaitCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.TranCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.OtherCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.TotalCost | -- | -- | -- | -- |
| 0 | | | | |
| MP2.VATime | 18.134 | (Insuf) | 11.144 | 27.135 |
| 288 | | | | |
| MP2.NVATime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.WaitTime | 4.1340 | (Insuf) | .36948 | 8.8897 |
| 288 | | | | |
| MP2.TranTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.OtherTime | 17.933 | (Insuf) | 11.927 | 24.265 |
| 288 | | | | |
| MP2.TotalTime | 31.167 | (Insuf) | 20.652 | 42.045 |
| 288 | | | | |
| MP2.VACost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.NVACost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.WaitCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.TranCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.OtherCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.TotalCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Premezcla.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Premezcla.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Alistamiento MP.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 289 | | | | |
| Alistamiento MP.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |

| | | | | |
|---------------------------------------|--------|---------|--------|--------|
| 289 | | | | |
| Mezcla2.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Mezcla2.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Unionpreymezcla.Queue2.WaitingTime | .00128 | (Insuf) | .00000 | .36948 |
| 288 | | | | |
| Unionpreymezcla.Queue2.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Unionpreymezcla.Queue1.WaitingTime | 4.1327 | (Insuf) | .00000 | 8.8897 |
| 288 | | | | |
| Unionpreymezcla.Queue1.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Envasado y filtrado.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Envasado y filtrado.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |

DISCRETE-CHANGE VARIABLES

| Identifier | Average | Half Width | Minimum | |
|------------------------------------|---------|------------|---------|--------|
| Maximum Final Value | | | | |
| <hr/> | | | | |
| MP.WIP | .89051 | .01172 | .00000 | 2.0000 |
| 1.0000 | | | | |
| MP2.WIP | .94381 | .01900 | .00000 | 2.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberBusy | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.Utilization | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rBascula.NumberBusy | .28955 | .01203 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.Utilization | .28955 | .01203 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.NumberBusy | .37239 | .00984 | .00000 | 1.0000 |
| .00000 | | | | |
| rMaqmezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.Utilization | .37239 | .00984 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberBusy | .14003 | .00324 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |

| | | | | |
|---|-----------|---------|--------|--------|
| 1.0000 | | | | |
| rPremezcla.Utilization | .14003 | .00324 | .00000 | 1.0000 |
| .00000 | | | | |
| Premezcla.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Alistamiento MP.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Mezcla2.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Unionpreymezcla.Queue2.NumberInQueue | 3.6655E-5 | (Insuf) | .00000 | 1.0000 |
| .00000 | | | | |
| Unionpreymezcla.Queue1.NumberInQueue | .11808 | .00568 | .00000 | 1.0000 |
| .00000 | | | | |
| Envasado y filtrado.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |

OUTPUTS

| Identifíer | Value |
|------------|-------|
|------------|-------|

| | |
|---|--------|
| Alistamiento MP Number Out | 288.00 |
| Alistamiento MP Accum VA Time | 2918.6 |
| Envasado y filtrado Total Accum Time | 2304.0 |
| Alistamiento MP Number In | 289.00 |
| Envasado y filtrado Accum VA Cost | .00000 |
| Envasado y filtrado Accum VA Time | 2304.0 |
| Alistamiento MP Accum VA Cost | .00000 |
| Envasado y filtrado Accum Wait Time | .00000 |
| Alistamiento MP Accum Wait Cost | .00000 |
| Alistamiento MP Accum Wait Time | .00000 |
| Alistamiento MP Total Accum Time | 2918.6 |
| Envasado y filtrado Number Out | 288.00 |
| Envasado y filtrado Number In | 288.00 |
| Alistamiento MP Total Accum Cost | .00000 |
| Envasado y filtrado Total Accum Cost | .00000 |
| Envasado y filtrado Accum Wait Cost | .00000 |
| MP.NumberIn | 577.00 |
| MP.NumberOut | 576.00 |
| MP2.NumberIn | 576.00 |
| MP2.NumberOut | 576.00 |
| rEvansadoyFiltrado.NumberSeized | 288.00 |
| rEvansadoyFiltrado.ScheduledUtilization | .22857 |
| rEvansadoyFiltrado.BusyCost | .00000 |
| rEvansadoyFiltrado.IdleCost | .00000 |
| rEvansadoyFiltrado.UsageCost | .00000 |
| rBascula.NumberSeized | 289.00 |
| rBascula.ScheduledUtilization | .28955 |
| rBascula.BusyCost | .00000 |
| rBascula.IdleCost | .00000 |

| | |
|---------------------------------|--------|
| rBascula.UsageCost | .00000 |
| rMaqmezcla.NumberSeized | 288.00 |
| rMaqmezcla.ScheduledUtilization | .37239 |
| rMaqmezcla.BusyCost | .00000 |
| rMaqmezcla.IdleCost | .00000 |
| rMaqmezcla.UsageCost | .00000 |
| rPremezcla.NumberSeized | 288.00 |
| rPremezcla.ScheduledUtilization | .14003 |
| rPremezcla.BusyCost | .00000 |
| rPremezcla.IdleCost | .00000 |
| rPremezcla.UsageCost | .00000 |
| All Entities.VACost | .00000 |
| All Entities.NVACost | .00000 |
| All Entities.WaitCost | .00000 |
| All Entities.TranCost | .00000 |
| All Entities.OtherCost | .00000 |
| All Entities.TotalCost | .00000 |
| All Resources.BusyCost | .00000 |
| All Resources.IdleCost | .00000 |
| All Resources.UsageCost | .00000 |
| All Resources.TotalCost | .00000 |
| System.TotalCost | .00000 |
| System.NumberOut | 288.00 |

Beginning replication 6 of 10

ARENA Simulation Results
Valentina - License: STUDENT

Summary for Replication 6 of 10

| | |
|---|----------------|
| Project: Proceso productivo Pintura vinílica blanca tipo I (exterio | Run execution |
| date :10/16/2023 | |
| Analyst: Valentina Ortiz | Model revision |
| date:10/16/2023 | |

Replication ended at time : 10080.0 Minutes
Base Time Units: Minutes

TALLY VARIABLES

| Identifier | Average | Half Width | Minimum | Maximum |
|--|---------|------------|---------|---------|
| Alistamiento MP.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |

| | | | | |
|---|--------|---------|--------|--------|
| Alistamiento MP.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalTimePerEntity 288 | 9.5581 | (Insuf) | 2.9046 | 19.191 |
| Alistamiento MP.VATimePerEntity 288 | 9.5581 | (Insuf) | 2.9046 | 19.191 |
| Envasado y filtrado.TotalTimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Envasado y filtrado.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.VATimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Alistamiento MP.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP.VATime 0 | -- | -- | -- | -- |
| MP.NVATime 0 | -- | -- | -- | -- |
| MP.WaitTime 0 | -- | -- | -- | -- |
| MP.TranTime 0 | -- | -- | -- | -- |
| MP.OtherTime 0 | -- | -- | -- | -- |
| MP.TotalTime 0 | -- | -- | -- | -- |
| MP.VACost 0 | -- | -- | -- | -- |
| MP.NVACost 0 | -- | -- | -- | -- |
| MP.WaitCost 0 | -- | -- | -- | -- |
| MP.TranCost 0 | -- | -- | -- | -- |
| MP.OtherCost 0 | -- | -- | -- | -- |
| MP.TotalCost 0 | -- | -- | -- | -- |
| MP2.VATime 288 | 17.558 | (Insuf) | 10.904 | 27.191 |
| MP2.NVATime 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.WaitTime 288 | 3.9023 | (Insuf) | .54294 | 8.2116 |

| | | | | |
|--|--------|---------|--------|--------|
| MP2.TranTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.OtherTime 288 | 17.831 | (Insuf) | 11.548 | 23.435 |
| MP2.TotalTime 288 | 30.369 | (Insuf) | 21.405 | 40.835 |
| MP2.VACost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.NVACost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.WaitCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.TranCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.OtherCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.TotalCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Premezcla.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Premezcla.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.Queue.WaitingTime 289 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.Queue.WaitingCost 289 | .00000 | (Insuf) | .00000 | .00000 |
| Mezcla2.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Mezcla2.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue2.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue2.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue1.WaitingTime 288 | 3.9023 | (Insuf) | .54294 | 8.2116 |
| Unionpremezcla.Queue1.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |

DISCRETE-CHANGE VARIABLES

| Identifier | Average | Half Width | Minimum |
|------------------------|---------|------------|---------|
| Maximum Final Value | | | |

| | | | | |
|---|--------|---------|--------|--------|
| MP.WIP | .86771 | .01142 | .00000 | 2.0000 |
| 1.0000 | | | | |
| MP2.WIP | .93430 | .01797 | .00000 | 2.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberBusy | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.Utilization | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rBascula.NumberBusy | .27309 | .01234 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.Utilization | .27309 | .01234 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.NumberBusy | .36605 | .00926 | .00000 | 1.0000 |
| .00000 | | | | |
| rMaqmezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.Utilization | .36605 | .00926 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberBusy | .14344 | .00477 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rPremezcla.Utilization | .14344 | .00477 | .00000 | 1.0000 |
| .00000 | | | | |
| Premezcla.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Alistamiento MP.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Mezcla2.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Unionpreymezcla.Queue2.NumberInQueue | .00000 | (Insuf) | .00000 | 1.0000 |
| .00000 | | | | |
| Unionpreymezcla.Queue1.NumberInQueue | .11150 | .00488 | .00000 | 1.0000 |
| .00000 | | | | |
| Envasado y filtrado.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |

OUTPUTS

| Identifier | Value |
|--------------------------------------|--------|
| Alistamiento MP Number Out | 288.00 |
| Alistamiento MP Accum VA Time | 2752.7 |
| Envasado y filtrado Total Accum Time | 2304.0 |
| Alistamiento MP Number In | 289.00 |

| | |
|---|--------|
| Envasado y filtrado Accum VA Cost | .00000 |
| Envasado y filtrado Accum VA Time | 2304.0 |
| Alistamiento MP Accum VA Cost | .00000 |
| Envasado y filtrado Accum Wait Time | .00000 |
| Alistamiento MP Accum Wait Cost | .00000 |
| Alistamiento MP Accum Wait Time | .00000 |
| Alistamiento MP Total Accum Time | 2752.7 |
| Envasado y filtrado Number Out | 288.00 |
| Envasado y filtrado Number In | 288.00 |
| Alistamiento MP Total Accum Cost | .00000 |
| Envasado y filtrado Total Accum Cost | .00000 |
| Envasado y filtrado Accum Wait Cost | .00000 |
| MP.NumberIn | 577.00 |
| MP.NumberOut | 576.00 |
| MP2.NumberIn | 576.00 |
| MP2.NumberOut | 576.00 |
| rEvansadoyFiltrado.NumberSeized | 288.00 |
| rEvansadoyFiltrado.ScheduledUtilization | .22857 |
| rEvansadoyFiltrado.BusyCost | .00000 |
| rEvansadoyFiltrado.IdleCost | .00000 |
| rEvansadoyFiltrado.UsageCost | .00000 |
| rBascula.NumberSeized | 289.00 |
| rBascula.ScheduledUtilization | .27309 |
| rBascula.BusyCost | .00000 |
| rBascula.IdleCost | .00000 |
| rBascula.UsageCost | .00000 |
| rMaqmezcla.NumberSeized | 288.00 |
| rMaqmezcla.ScheduledUtilization | .36605 |
| rMaqmezcla.BusyCost | .00000 |
| rMaqmezcla.IdleCost | .00000 |
| rMaqmezcla.UsageCost | .00000 |
| rPremezcla.NumberSeized | 288.00 |
| rPremezcla.ScheduledUtilization | .14344 |
| rPremezcla.BusyCost | .00000 |
| rPremezcla.IdleCost | .00000 |
| rPremezcla.UsageCost | .00000 |
| All Entities.VACost | .00000 |
| All Entities.NVACost | .00000 |
| All Entities.WaitCost | .00000 |
| All Entities.TranCost | .00000 |
| All Entities.OtherCost | .00000 |
| All Entities.TotalCost | .00000 |
| All Resources.BusyCost | .00000 |
| All Resources.IdleCost | .00000 |
| All Resources.UsageCost | .00000 |
| All Resources.TotalCost | .00000 |
| System.TotalCost | .00000 |
| System.NumberOut | 288.00 |

Beginning replication 7 of 10

ARENA Simulation Results
Valentina - License: STUDENT

Summary for Replication 7 of 10

Project: Proceso productivo Pintura vinílica blanca tipo I (exterio Run execution
date :10/16/2023
Analyst: Valentina Ortiz Model revision
date:10/16/2023

Replication ended at time : 10080.0 Minutes
Base Time Units: Minutes

TALLY VARIABLES

| Identifier | Average | Half Width | Minimum | |
|---|---------|------------|---------|--------|
| Maximum Observations | | | | |
| <hr/> | | | | |
| Alistamiento MP.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitCostPerEntity 287 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitTimePerEntity 287 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.TotalCostPerEntity 287 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalTimePerEntity 288 | 10.024 | (Insuf) | 1.6719 | 17.875 |
| Alistamiento MP.VATimePerEntity 288 | 10.024 | (Insuf) | 1.6719 | 17.875 |
| Envasado y filtrado.TotalTimePerEntity 287 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Envasado y filtrado.VACostPerEntity 287 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.VATimePerEntity 287 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Alistamiento MP.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP.VATime 0 | -- | -- | -- | -- |
| MP.NVATime 0 | -- | -- | -- | -- |
| MP.WaitTime | -- | -- | -- | -- |

| | | | | |
|-----------------------------------|--------|---------|--------|--------|
| 0 | | | | |
| MP.TranTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.OtherTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.TotalTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.VACost | -- | -- | -- | -- |
| 0 | | | | |
| MP.NVACost | -- | -- | -- | -- |
| 0 | | | | |
| MP.WaitCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.TranCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.OtherCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.TotalCost | -- | -- | -- | -- |
| 0 | | | | |
| MP2.VATime | 18.010 | (Insuf) | 9.6719 | 25.875 |
| 287 | | | | |
| MP2.NVATime | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.WaitTime | 3.9867 | (Insuf) | .18190 | 8.0765 |
| 287 | | | | |
| MP2.TranTime | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.OtherTime | 18.241 | (Insuf) | 12.477 | 24.979 |
| 287 | | | | |
| MP2.TotalTime | 31.159 | (Insuf) | 20.498 | 43.394 |
| 287 | | | | |
| MP2.VACost | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.NVACost | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.WaitCost | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.TranCost | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.OtherCost | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| MP2.TotalCost | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |
| Premezcla.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Premezcla.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Alistamiento MP.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 289 | | | | |
| Alistamiento MP.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |

| | | | | |
|---------------------------------------|--------|---------|--------|--------|
| 289 | | | | |
| Mezcla2.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Mezcla2.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Unionpreymezcla.Queue2.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Unionpreymezcla.Queue2.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Unionpreymezcla.Queue1.WaitingTime | 3.9871 | (Insuf) | .18190 | 8.0765 |
| 288 | | | | |
| Unionpreymezcla.Queue1.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Envasado y filtrado.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Envasado y filtrado.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |

DISCRETE-CHANGE VARIABLES

| Identifier | Average | Half Width | Minimum | |
|------------------------------------|---------|------------|---------|--------|
| Maximum Final Value | | | | |
| <hr/> | | | | |
| MP.WIP | .89066 | .01491 | .00000 | 3.0000 |
| 2.0000 | | | | |
| MP2.WIP | .94907 | .01678 | .00000 | 3.0000 |
| 2.0000 | | | | |
| rEvansadoyFiltrado.NumberBusy | .22847 | (Corr) | .00000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.Utilization | .22847 | (Corr) | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberBusy | .28641 | .01261 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.Utilization | .28641 | .01261 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.NumberBusy | .37577 | .00806 | .00000 | 1.0000 |
| .00000 | | | | |
| rMaqmezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.Utilization | .37577 | .00806 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberBusy | .14550 | .00468 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |

| | | | | |
|---|--------|---------|--------|--------|
| 1.0000 | | | | |
| rPremezcla.Utilization | .14550 | .00468 | .00000 | 1.0000 |
| .00000 | | | | |
| Premezcla.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Alistamiento MP.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Mezcla2.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Unionpreymezcla.Queue2.NumberInQueue | .00000 | (Insuf) | .00000 | 1.0000 |
| .00000 | | | | |
| Unionpreymezcla.Queue1.NumberInQueue | .11392 | .00529 | .00000 | 1.0000 |
| .00000 | | | | |
| Envasado y filtrado.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |

OUTPUTS

| Identifíer | Value |
|---|--------|
| Alistamiento MP Number Out | 288.00 |
| Alistamiento MP Accum VA Time | 2887.0 |
| Envasado y filtrado Total Accum Time | 2296.0 |
| Alistamiento MP Number In | 289.00 |
| Envasado y filtrado Accum VA Cost | .00000 |
| Envasado y filtrado Accum VA Time | 2296.0 |
| Alistamiento MP Accum VA Cost | .00000 |
| Envasado y filtrado Accum Wait Time | .00000 |
| Alistamiento MP Accum Wait Cost | .00000 |
| Alistamiento MP Accum Wait Time | .00000 |
| Alistamiento MP Total Accum Time | 2887.0 |
| Envasado y filtrado Number Out | 287.00 |
| Envasado y filtrado Number In | 288.00 |
| Alistamiento MP Total Accum Cost | .00000 |
| Envasado y filtrado Total Accum Cost | .00000 |
| Envasado y filtrado Accum Wait Cost | .00000 |
| MP.NumberIn | 577.00 |
| MP.NumberOut | 575.00 |
| MP2.NumberIn | 576.00 |
| MP2.NumberOut | 574.00 |
| rEvansadoyFiltrado.NumberSeized | 288.00 |
| rEvansadoyFiltrado.ScheduledUtilization | .22847 |
| rEvansadoyFiltrado.BusyCost | .00000 |
| rEvansadoyFiltrado.IdleCost | .00000 |
| rEvansadoyFiltrado.UsageCost | .00000 |
| rBascula.NumberSeized | 289.00 |
| rBascula.ScheduledUtilization | .28641 |
| rBascula.BusyCost | .00000 |
| rBascula.IdleCost | .00000 |

| | |
|---------------------------------|--------|
| rBascula.UsageCost | .00000 |
| rMaqmezcla.NumberSeized | 288.00 |
| rMaqmezcla.ScheduledUtilization | .37577 |
| rMaqmezcla.BusyCost | .00000 |
| rMaqmezcla.IdleCost | .00000 |
| rMaqmezcla.UsageCost | .00000 |
| rPremezcla.NumberSeized | 288.00 |
| rPremezcla.ScheduledUtilization | .14550 |
| rPremezcla.BusyCost | .00000 |
| rPremezcla.IdleCost | .00000 |
| rPremezcla.UsageCost | .00000 |
| All Entities.VACost | .00000 |
| All Entities.NVACost | .00000 |
| All Entities.WaitCost | .00000 |
| All Entities.TranCost | .00000 |
| All Entities.OtherCost | .00000 |
| All Entities.TotalCost | .00000 |
| All Resources.BusyCost | .00000 |
| All Resources.IdleCost | .00000 |
| All Resources.UsageCost | .00000 |
| All Resources.TotalCost | .00000 |
| System.TotalCost | .00000 |
| System.NumberOut | 287.00 |

Beginning replication 8 of 10

ARENA Simulation Results
Valentina - License: STUDENT

Summary for Replication 8 of 10

| | |
|---|----------------|
| Project: Proceso productivo Pintura vinílica blanca tipo I (exterio | Run execution |
| date :10/16/2023 | |
| Analyst: Valentina Ortiz | Model revision |
| date:10/16/2023 | |

Replication ended at time : 10080.0 Minutes
Base Time Units: Minutes

TALLY VARIABLES

| Identifier | Average | Half Width | Minimum | Maximum |
|--|---------|------------|---------|---------|
| Alistamiento MP.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |

| | | | | |
|---|--------|---------|--------|--------|
| Alistamiento MP.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalTimePerEntity 288 | 10.056 | (Insuf) | 2.3248 | 17.348 |
| Alistamiento MP.VATimePerEntity 288 | 10.056 | (Insuf) | 2.3248 | 17.348 |
| Envasado y filtrado.TotalTimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Envasado y filtrado.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.VATimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Alistamiento MP.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP.VATime 0 | -- | -- | -- | -- |
| MP.NVATime 0 | -- | -- | -- | -- |
| MP.WaitTime 0 | -- | -- | -- | -- |
| MP.TranTime 0 | -- | -- | -- | -- |
| MP.OtherTime 0 | -- | -- | -- | -- |
| MP.TotalTime 0 | -- | -- | -- | -- |
| MP.VACost 0 | -- | -- | -- | -- |
| MP.NVACost 0 | -- | -- | -- | -- |
| MP.WaitCost 0 | -- | -- | -- | -- |
| MP.TranCost 0 | -- | -- | -- | -- |
| MP.OtherCost 0 | -- | -- | -- | -- |
| MP.TotalCost 0 | -- | -- | -- | -- |
| MP2.VATime 288 | 18.056 | (Insuf) | 10.324 | 25.348 |
| MP2.NVATime 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.WaitTime 288 | 3.8329 | (Insuf) | .16638 | 7.6330 |

| | | | | |
|--|--------|---------|--------|--------|
| MP2.TranTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.OtherTime 288 | 18.128 | (Insuf) | 11.248 | 25.495 |
| MP2.TotalTime 288 | 31.031 | (Insuf) | 20.633 | 41.108 |
| MP2.VACost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.NVACost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.WaitCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.TranCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.OtherCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.TotalCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Premezcla.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Premezcla.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.Queue.WaitingTime 289 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.Queue.WaitingCost 289 | .00000 | (Insuf) | .00000 | .00000 |
| Mezcla2.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Mezcla2.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue2.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue2.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue1.WaitingTime 288 | 3.8329 | (Insuf) | .16638 | 7.6330 |
| Unionpremezcla.Queue1.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |

DISCRETE-CHANGE VARIABLES

| Identifier | Average | Half Width | Minimum |
|------------------------|---------|------------|---------|
| Maximum Final Value | | | |

| | | | | |
|---|--------|---------|--------|--------|
| MP.WIP | .88661 | .01273 | .00000 | 2.0000 |
| 1.0000 | | | | |
| MP2.WIP | .94181 | (Corr) | .00000 | 2.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberBusy | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.Utilization | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rBascula.NumberBusy | .28733 | .01117 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.Utilization | .28733 | .01117 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.NumberBusy | .37071 | .00841 | .00000 | 1.0000 |
| .00000 | | | | |
| rMaqmezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.Utilization | .37071 | .00841 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberBusy | .14724 | .00321 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rPremezcla.Utilization | .14724 | .00321 | .00000 | 1.0000 |
| .00000 | | | | |
| Premezcla.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Alistamiento MP.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Mezcla2.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Unionpreymezcla.Queue2.NumberInQueue | .00000 | (Insuf) | .00000 | 1.0000 |
| .00000 | | | | |
| Unionpreymezcla.Queue1.NumberInQueue | .10951 | .00571 | .00000 | 1.0000 |
| .00000 | | | | |
| Envasado y filtrado.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |

OUTPUTS

| Identifier | Value |
|--------------------------------------|--------|
| Alistamiento MP Number Out | 288.00 |
| Alistamiento MP Accum VA Time | 2896.2 |
| Envasado y filtrado Total Accum Time | 2304.0 |
| Alistamiento MP Number In | 289.00 |

| | |
|---|--------|
| Envasado y filtrado Accum VA Cost | .00000 |
| Envasado y filtrado Accum VA Time | 2304.0 |
| Alistamiento MP Accum VA Cost | .00000 |
| Envasado y filtrado Accum Wait Time | .00000 |
| Alistamiento MP Accum Wait Cost | .00000 |
| Alistamiento MP Accum Wait Time | .00000 |
| Alistamiento MP Total Accum Time | 2896.2 |
| Envasado y filtrado Number Out | 288.00 |
| Envasado y filtrado Number In | 288.00 |
| Alistamiento MP Total Accum Cost | .00000 |
| Envasado y filtrado Total Accum Cost | .00000 |
| Envasado y filtrado Accum Wait Cost | .00000 |
| MP.NumberIn | 577.00 |
| MP.NumberOut | 576.00 |
| MP2.NumberIn | 576.00 |
| MP2.NumberOut | 576.00 |
| rEvansadoyFiltrado.NumberSeized | 288.00 |
| rEvansadoyFiltrado.ScheduledUtilization | .22857 |
| rEvansadoyFiltrado.BusyCost | .00000 |
| rEvansadoyFiltrado.IdleCost | .00000 |
| rEvansadoyFiltrado.UsageCost | .00000 |
| rBascula.NumberSeized | 289.00 |
| rBascula.ScheduledUtilization | .28733 |
| rBascula.BusyCost | .00000 |
| rBascula.IdleCost | .00000 |
| rBascula.UsageCost | .00000 |
| rMaqmezcla.NumberSeized | 288.00 |
| rMaqmezcla.ScheduledUtilization | .37071 |
| rMaqmezcla.BusyCost | .00000 |
| rMaqmezcla.IdleCost | .00000 |
| rMaqmezcla.UsageCost | .00000 |
| rPremezcla.NumberSeized | 288.00 |
| rPremezcla.ScheduledUtilization | .14724 |
| rPremezcla.BusyCost | .00000 |
| rPremezcla.IdleCost | .00000 |
| rPremezcla.UsageCost | .00000 |
| All Entities.VACost | .00000 |
| All Entities.NVACost | .00000 |
| All Entities.WaitCost | .00000 |
| All Entities.TranCost | .00000 |
| All Entities.OtherCost | .00000 |
| All Entities.TotalCost | .00000 |
| All Resources.BusyCost | .00000 |
| All Resources.IdleCost | .00000 |
| All Resources.UsageCost | .00000 |
| All Resources.TotalCost | .00000 |
| System.TotalCost | .00000 |
| System.NumberOut | 288.00 |

Beginning replication 9 of 10

ARENA Simulation Results
Valentina - License: STUDENT

Summary for Replication 9 of 10

Project: Proceso productivo Pintura vinílica blanca tipo I (exterio Run execution
date :10/16/2023
Analyst: Valentina Ortiz Model revision
date:10/16/2023

Replication ended at time : 10080.0 Minutes
Base Time Units: Minutes

TALLY VARIABLES

| Identifier | Average | Half Width | Minimum | |
|---|---------|------------|---------|--------|
| Maximum Observations | | | | |
| <hr/> | | | | |
| Alistamiento MP.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitTimePerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalTimePerEntity 288 | 9.8728 | (Insuf) | 1.2325 | 19.819 |
| Alistamiento MP.VATimePerEntity 288 | 9.8728 | (Insuf) | 1.2325 | 19.819 |
| Envasado y filtrado.TotalTimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Envasado y filtrado.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.VATimePerEntity 288 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Alistamiento MP.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP.VATime 0 | -- | -- | -- | -- |
| MP.NVATime 0 | -- | -- | -- | -- |
| MP.WaitTime | -- | -- | -- | -- |

| | | | | |
|-----------------------------------|--------|---------|--------|--------|
| 0 | | | | |
| MP.TranTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.OtherTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.TotalTime | -- | -- | -- | -- |
| 0 | | | | |
| MP.VACost | -- | -- | -- | -- |
| 0 | | | | |
| MP.NVACost | -- | -- | -- | -- |
| 0 | | | | |
| MP.WaitCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.TranCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.OtherCost | -- | -- | -- | -- |
| 0 | | | | |
| MP.TotalCost | -- | -- | -- | -- |
| 0 | | | | |
| MP2.VATime | 17.872 | (Insuf) | 9.2325 | 27.819 |
| 288 | | | | |
| MP2.NVATime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.WaitTime | 3.9187 | (Insuf) | .04870 | 7.5093 |
| 288 | | | | |
| MP2.TranTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.OtherTime | 17.794 | (Insuf) | 11.241 | 24.993 |
| 288 | | | | |
| MP2.TotalTime | 30.660 | (Insuf) | 20.716 | 44.436 |
| 288 | | | | |
| MP2.VACost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.NVACost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.WaitCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.TranCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.OtherCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| MP2.TotalCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Premezcla.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Premezcla.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Alistamiento MP.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 289 | | | | |
| Alistamiento MP.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |

| | | | | |
|---------------------------------------|-----------|---------|--------|--------|
| 289 | | | | |
| Mezcla2.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Mezcla2.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Unionpreymezcla.Queue2.WaitingTime | 1.6908E-4 | (Insuf) | .00000 | .04870 |
| 288 | | | | |
| Unionpreymezcla.Queue2.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Unionpreymezcla.Queue1.WaitingTime | 3.9186 | (Insuf) | .00000 | 7.5093 |
| 288 | | | | |
| Unionpreymezcla.Queue1.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Envasado y filtrado.Queue.WaitingTime | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Envasado y filtrado.Queue.WaitingCost | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |

DISCRETE-CHANGE VARIABLES

| Identifier | Average | Half Width | Minimum | |
|------------------------------------|---------|------------|---------|--------|
| Maximum Final Value | | | | |
| <hr/> | | | | |
| MP.WIP | .87600 | .01531 | .00000 | 3.0000 |
| 1.0000 | | | | |
| MP2.WIP | .93282 | (Corr) | .00000 | 3.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberBusy | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rEvansadoyFiltrado.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.Utilization | .22857 | (Corr) | .00000 | 1.0000 |
| .00000 | | | | |
| rBascula.NumberBusy | .28208 | .01148 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.Utilization | .28208 | .01148 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.NumberBusy | .36535 | .01020 | .00000 | 1.0000 |
| .00000 | | | | |
| rMaqmezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.Utilization | .36535 | .01020 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberBusy | .14306 | .00412 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |

| | | | | |
|---|-----------|---------|--------|--------|
| 1.0000 | | | | |
| rPremezcla.Utilization | .14306 | .00412 | .00000 | 1.0000 |
| .00000 | | | | |
| Premezcla.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Alistamiento MP.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Mezcla2.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Unionpreymezcla.Queue2.NumberInQueue | 4.8310E-6 | (Insuf) | .00000 | 1.0000 |
| .00000 | | | | |
| Unionpreymezcla.Queue1.NumberInQueue | .11196 | .00630 | .00000 | 1.0000 |
| .00000 | | | | |
| Envasado y filtrado.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |

OUTPUTS

| Identifíer | Value |
|------------|-------|
|------------|-------|

| | |
|---|--------|
| Alistamiento MP Number Out | 288.00 |
| Alistamiento MP Accum VA Time | 2843.3 |
| Envasado y filtrado Total Accum Time | 2304.0 |
| Alistamiento MP Number In | 289.00 |
| Envasado y filtrado Accum VA Cost | .00000 |
| Envasado y filtrado Accum VA Time | 2304.0 |
| Alistamiento MP Accum VA Cost | .00000 |
| Envasado y filtrado Accum Wait Time | .00000 |
| Alistamiento MP Accum Wait Cost | .00000 |
| Alistamiento MP Accum Wait Time | .00000 |
| Alistamiento MP Total Accum Time | 2843.3 |
| Envasado y filtrado Number Out | 288.00 |
| Envasado y filtrado Number In | 288.00 |
| Alistamiento MP Total Accum Cost | .00000 |
| Envasado y filtrado Total Accum Cost | .00000 |
| Envasado y filtrado Accum Wait Cost | .00000 |
| MP.NumberIn | 577.00 |
| MP.NumberOut | 576.00 |
| MP2.NumberIn | 576.00 |
| MP2.NumberOut | 576.00 |
| rEvansadoyFiltrado.NumberSeized | 288.00 |
| rEvansadoyFiltrado.ScheduledUtilization | .22857 |
| rEvansadoyFiltrado.BusyCost | .00000 |
| rEvansadoyFiltrado.IdleCost | .00000 |
| rEvansadoyFiltrado.UsageCost | .00000 |
| rBascula.NumberSeized | 289.00 |
| rBascula.ScheduledUtilization | .28208 |
| rBascula.BusyCost | .00000 |
| rBascula.IdleCost | .00000 |

| | |
|---------------------------------|--------|
| rBascula.UsageCost | .00000 |
| rMaqmezcla.NumberSeized | 288.00 |
| rMaqmezcla.ScheduledUtilization | .36535 |
| rMaqmezcla.BusyCost | .00000 |
| rMaqmezcla.IdleCost | .00000 |
| rMaqmezcla.UsageCost | .00000 |
| rPremezcla.NumberSeized | 288.00 |
| rPremezcla.ScheduledUtilization | .14306 |
| rPremezcla.BusyCost | .00000 |
| rPremezcla.IdleCost | .00000 |
| rPremezcla.UsageCost | .00000 |
| All Entities.VACost | .00000 |
| All Entities.NVACost | .00000 |
| All Entities.WaitCost | .00000 |
| All Entities.TranCost | .00000 |
| All Entities.OtherCost | .00000 |
| All Entities.TotalCost | .00000 |
| All Resources.BusyCost | .00000 |
| All Resources.IdleCost | .00000 |
| All Resources.UsageCost | .00000 |
| All Resources.TotalCost | .00000 |
| System.TotalCost | .00000 |
| System.NumberOut | 288.00 |

Beginning replication 10 of 10

ARENA Simulation Results
Valentina - License: STUDENT

Summary for Replication 10 of 10

| | |
|---|----------------|
| Project: Proceso productivo Pintura vinílica blanca tipo I (exterio | Run execution |
| date :10/16/2023 | |
| Analyst: Valentina Ortiz | Model revision |
| date:10/16/2023 | |

Replication ended at time : 10080.0 Minutes
Base Time Units: Minutes

TALLY VARIABLES

| Identifier | Average | Half Width | Minimum | |
|---------------------------------------|---------|------------|---------|--------|
| Maximum Observations | | | | |
| Alistamiento MP.WaitTimePerEntity | .00000 | (Insuf) | .00000 | .00000 |
| 288 | | | | |
| Envasado y filtrado.WaitCostPerEntity | .00000 | (Insuf) | .00000 | .00000 |
| 287 | | | | |

| | | | | |
|---|--------|---------|--------|--------|
| Alistamiento MP.WaitCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.WaitTimePerEntity 287 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.TotalCostPerEntity 287 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalTimePerEntity 288 | 9.8762 | (Insuf) | .46396 | 17.509 |
| Alistamiento MP.VATimePerEntity 288 | 9.8762 | (Insuf) | .46396 | 17.509 |
| Envasado y filtrado.TotalTimePerEntity 287 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Envasado y filtrado.VACostPerEntity 287 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.VATimePerEntity 287 | 8.0000 | (Insuf) | 8.0000 | 8.0000 |
| Alistamiento MP.VACostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.TotalCostPerEntity 288 | .00000 | (Insuf) | .00000 | .00000 |
| MP.VATime 0 | -- | -- | -- | -- |
| MP.NVATime 0 | -- | -- | -- | -- |
| MP.WaitTime 0 | -- | -- | -- | -- |
| MP.TranTime 0 | -- | -- | -- | -- |
| MP.OtherTime 0 | -- | -- | -- | -- |
| MP.TotalTime 0 | -- | -- | -- | -- |
| MP.VACost 0 | -- | -- | -- | -- |
| MP.NVACost 0 | -- | -- | -- | -- |
| MP.WaitCost 0 | -- | -- | -- | -- |
| MP.TranCost 0 | -- | -- | -- | -- |
| MP.OtherCost 0 | -- | -- | -- | -- |
| MP.TotalCost 0 | -- | -- | -- | -- |
| MP2.VATime 287 | 17.882 | (Insuf) | 8.4639 | 25.509 |
| MP2.NVATime 287 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.WaitTime 287 | 3.9457 | (Insuf) | .57324 | 8.4673 |

| | | | | |
|--|--------|---------|--------|--------|
| MP2.TranTime 287 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.OtherTime 287 | 18.036 | (Insuf) | 12.295 | 24.774 |
| MP2.TotalTime 287 | 30.893 | (Insuf) | 20.214 | 39.970 |
| MP2.VACost 287 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.NVACost 287 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.WaitCost 287 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.TranCost 287 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.OtherCost 287 | .00000 | (Insuf) | .00000 | .00000 |
| MP2.TotalCost 287 | .00000 | (Insuf) | .00000 | .00000 |
| Premezcla.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Premezcla.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.Queue.WaitingTime 289 | .00000 | (Insuf) | .00000 | .00000 |
| Alistamiento MP.Queue.WaitingCost 289 | .00000 | (Insuf) | .00000 | .00000 |
| Mezcla2.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Mezcla2.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue2.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue2.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Unionpremezcla.Queue1.WaitingTime 288 | 3.9522 | (Insuf) | .57324 | 8.4673 |
| Unionpremezcla.Queue1.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.Queue.WaitingTime 288 | .00000 | (Insuf) | .00000 | .00000 |
| Envasado y filtrado.Queue.WaitingCost 288 | .00000 | (Insuf) | .00000 | .00000 |

DISCRETE-CHANGE VARIABLES

| Identifier | Average | Half Width | Minimum |
|------------------------|---------|------------|---------|
| Maximum Final Value | | | |

| | | | | |
|---|--------|---------|--------|--------|
| MP.WIP | .88308 | .01045 | .00000 | 2.0000 |
| 2.0000 | | | | |
| MP2.WIP | .94542 | .01536 | .00000 | 2.0000 |
| 2.0000 | | | | |
| rEvansadoyFiltrado.NumberBusy | .22847 | (Corr) | .00000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rEvansadoyFiltrado.Utilization | .22847 | (Corr) | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberBusy | .28218 | .01004 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rBascula.Utilization | .28218 | .01004 | .00000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.NumberBusy | .37243 | .00843 | .00000 | 1.0000 |
| .00000 | | | | |
| rMaqmezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rMaqmezcla.Utilization | .37243 | .00843 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberBusy | .14347 | .00422 | .00000 | 1.0000 |
| .00000 | | | | |
| rPremezcla.NumberScheduled | 1.0000 | (Insuf) | 1.0000 | 1.0000 |
| 1.0000 | | | | |
| rPremezcla.Utilization | .14347 | .00422 | .00000 | 1.0000 |
| .00000 | | | | |
| Premezcla.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Alistamiento MP.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Mezcla2.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |
| Unionpreymezcla.Queue2.NumberInQueue | .00000 | (Insuf) | .00000 | 1.0000 |
| .00000 | | | | |
| Unionpreymezcla.Queue1.NumberInQueue | .11292 | .00531 | .00000 | 1.0000 |
| .00000 | | | | |
| Envasado y filtrado.Queue.NumberInQueue | .00000 | (Insuf) | .00000 | .00000 |
| .00000 | | | | |

OUTPUTS

| Identifier | Value |
|--------------------------------------|--------|
| Alistamiento MP Number Out | 288.00 |
| Alistamiento MP Accum VA Time | 2844.3 |
| Envasado y filtrado Total Accum Time | 2296.0 |
| Alistamiento MP Number In | 289.00 |

| | |
|---|--------|
| Envasado y filtrado Accum VA Cost | .00000 |
| Envasado y filtrado Accum VA Time | 2296.0 |
| Alistamiento MP Accum VA Cost | .00000 |
| Envasado y filtrado Accum Wait Time | .00000 |
| Alistamiento MP Accum Wait Cost | .00000 |
| Alistamiento MP Accum Wait Time | .00000 |
| Alistamiento MP Total Accum Time | 2844.3 |
| Envasado y filtrado Number Out | 287.00 |
| Envasado y filtrado Number In | 288.00 |
| Alistamiento MP Total Accum Cost | .00000 |
| Envasado y filtrado Total Accum Cost | .00000 |
| Envasado y filtrado Accum Wait Cost | .00000 |
| MP.NumberIn | 577.00 |
| MP.NumberOut | 575.00 |
| MP2.NumberIn | 576.00 |
| MP2.NumberOut | 574.00 |
| rEvansadoyFiltrado.NumberSeized | 288.00 |
| rEvansadoyFiltrado.ScheduledUtilization | .22847 |
| rEvansadoyFiltrado.BusyCost | .00000 |
| rEvansadoyFiltrado.IdleCost | .00000 |
| rEvansadoyFiltrado.UsageCost | .00000 |
| rBascula.NumberSeized | 289.00 |
| rBascula.ScheduledUtilization | .28218 |
| rBascula.BusyCost | .00000 |
| rBascula.IdleCost | .00000 |
| rBascula.UsageCost | .00000 |
| rMaqmezcla.NumberSeized | 288.00 |
| rMaqmezcla.ScheduledUtilization | .37243 |
| rMaqmezcla.BusyCost | .00000 |
| rMaqmezcla.IdleCost | .00000 |
| rMaqmezcla.UsageCost | .00000 |
| rPremezcla.NumberSeized | 288.00 |
| rPremezcla.ScheduledUtilization | .14347 |
| rPremezcla.BusyCost | .00000 |
| rPremezcla.IdleCost | .00000 |
| rPremezcla.UsageCost | .00000 |
| All Entities.VACost | .00000 |
| All Entities.NVACost | .00000 |
| All Entities.WaitCost | .00000 |
| All Entities.TranCost | .00000 |
| All Entities.OtherCost | .00000 |
| All Entities.TotalCost | .00000 |
| All Resources.BusyCost | .00000 |
| All Resources.IdleCost | .00000 |
| All Resources.UsageCost | .00000 |
| All Resources.TotalCost | .00000 |
| System.TotalCost | .00000 |
| System.NumberOut | 287.00 |

ARENA Simulation Results
Valentina - License: STUDENT

Output Summary for 10 Replications

Project: Proceso productivo Pintura vinílica blanca tipo I (exterio Run execution
date :10/16/2023
Analyst: Valentina Ortiz Model revision
date:10/16/2023

OUTPUTS

| Identifier # Replications | Average | Half-width | Minimum | Maximum |
|--|---------|------------|---------|---------|
| Alistamiento MP Number Out 10 | 288.00 | .00000 | 288.00 | 288.00 |
| Alistamiento MP Accum VA Time 10 | 2847.1 | 37.379 | 2752.7 | 2918.6 |
| Envasado y filtrado Total Accum Time 10 | 2301.6 | 2.7642 | 2296.0 | 2304.0 |
| Alistamiento MP Number In 10 | 289.00 | .00000 | 289.00 | 289.00 |
| Envasado y filtrado Accum VA Cost 10 | .00000 | .00000 | .00000 | .00000 |
| Envasado y filtrado Accum VA Time 10 | 2301.6 | 2.7642 | 2296.0 | 2304.0 |
| Alistamiento MP Accum VA Cost 10 | .00000 | .00000 | .00000 | .00000 |
| Envasado y filtrado Accum Wait Time 10 | .00000 | .00000 | .00000 | .00000 |
| Alistamiento MP Accum Wait Cost 10 | .00000 | .00000 | .00000 | .00000 |
| Alistamiento MP Accum Wait Time 10 | .00000 | .00000 | .00000 | .00000 |
| Alistamiento MP Total Accum Time 10 | 2847.1 | 37.379 | 2752.7 | 2918.6 |
| Envasado y filtrado Number Out 10 | 287.70 | .34553 | 287.00 | 288.00 |
| Envasado y filtrado Number In 10 | 288.00 | .00000 | 288.00 | 288.00 |
| Alistamiento MP Total Accum Cost 10 | .00000 | .00000 | .00000 | .00000 |
| Envasado y filtrado Total Accum Cost 10 | .00000 | .00000 | .00000 | .00000 |
| Envasado y filtrado Accum Wait Cost 10 | .00000 | .00000 | .00000 | .00000 |

| | | | | |
|---|--------|-----------|--------|--------|
| MP.NumberIn 10 | 577.00 | .00000 | 577.00 | 577.00 |
| MP.NumberOut 10 | 575.70 | .34553 | 575.00 | 576.00 |
| MP2.NumberIn 10 | 576.00 | .00000 | 576.00 | 576.00 |
| MP2.NumberOut 10 | 575.40 | .69105 | 574.00 | 576.00 |
| rEvansadoyFiltrado.NumberSeized 10 | 288.00 | .00000 | 288.00 | 288.00 |
| rEvansadoyFiltrado.ScheduledUtilization 10 | .22855 | 3.0413E-5 | .22847 | .22857 |
| rEvansadoyFiltrado.BusyCost 10 | .00000 | .00000 | .00000 | .00000 |
| rEvansadoyFiltrado.IdleCost 10 | .00000 | .00000 | .00000 | .00000 |
| rEvansadoyFiltrado.UsageCost 10 | .00000 | .00000 | .00000 | .00000 |
| rBascula.NumberSeized 10 | 289.00 | .00000 | 289.00 | 289.00 |
| rBascula.ScheduledUtilization 10 | .28246 | .00371 | .27309 | .28955 |
| rBascula.BusyCost 10 | .00000 | .00000 | .00000 | .00000 |
| rBascula.IdleCost 10 | .00000 | .00000 | .00000 | .00000 |
| rBascula.UsageCost 10 | .00000 | .00000 | .00000 | .00000 |
| rMaqmezcla.NumberSeized 10 | 288.00 | .00000 | 288.00 | 288.00 |
| rMaqmezcla.ScheduledUtilization 10 | .36987 | .00236 | .36535 | .37577 |
| rMaqmezcla.BusyCost 10 | .00000 | .00000 | .00000 | .00000 |
| rMaqmezcla.IdleCost 10 | .00000 | .00000 | .00000 | .00000 |
| rMaqmezcla.UsageCost 10 | .00000 | .00000 | .00000 | .00000 |
| rPremezcla.NumberSeized 10 | 288.00 | .00000 | 288.00 | 288.00 |
| rPremezcla.ScheduledUtilization 10 | .14352 | .00134 | .14003 | .14724 |
| rPremezcla.BusyCost 10 | .00000 | .00000 | .00000 | .00000 |
| rPremezcla.IdleCost 10 | .00000 | .00000 | .00000 | .00000 |
| rPremezcla.UsageCost 10 | .00000 | .00000 | .00000 | .00000 |
| All Entities.VACost 10 | .00000 | .00000 | .00000 | .00000 |

| | | | | |
|-------------------------------|--------|--------|--------|--------|
| All Entities.NVACost 10 | .00000 | .00000 | .00000 | .00000 |
| All Entities.WaitCost 10 | .00000 | .00000 | .00000 | .00000 |
| All Entities.TranCost 10 | .00000 | .00000 | .00000 | .00000 |
| All Entities.OtherCost 10 | .00000 | .00000 | .00000 | .00000 |
| All Entities.TotalCost 10 | .00000 | .00000 | .00000 | .00000 |
| All Resources.BusyCost 10 | .00000 | .00000 | .00000 | .00000 |
| All Resources.IdleCost 10 | .00000 | .00000 | .00000 | .00000 |
| All Resources.UsageCost 10 | .00000 | .00000 | .00000 | .00000 |
| All Resources.TotalCost 10 | .00000 | .00000 | .00000 | .00000 |
| System.TotalCost 10 | .00000 | .00000 | .00000 | .00000 |
| System.NumberOut 10 | 287.70 | .34553 | 287.00 | 288.00 |

Simulation run time: 0.08 minutes.
Simulation run complete.