ME 635: Modelling and Simulation Homework 3

Simulation models using Arena

09/26/2022

I pledge my honor that I have abided by the Stevens Honor System.

Submitted by,

Viral Panchal.

Q1)

Text, letter

Description automatically generated

***Model:***

Diagram

Description automatically generated

***Parameters within each block:***

1. Arriving Item – Create block 1

Graphical user interface, application

Description automatically generated

1. Packing Process – Process block 1

Graphical user interface, application

Description automatically generated

1. Changing entity to packed box – Assign block

Graphical user interface, application

Description automatically generated

1. International package – Decide block

Graphical user interface, text, application

Description automatically generated

1. International Process – Process block 2

Graphical user interface, application

Description automatically generated

1. Domestic Process – Process block 3

Graphical user interface, application

Description automatically generated

1. Box delivered – Dispose block

Graphical user interface, application

Description automatically generated

1. Schedule spreadsheet

Table

Description automatically generated

***Result:***

**Table

Description automatically generated**

**#** [*Q1\_ViralPanchal\_zipfile*](Q1_ViralPanchal.zip)

*(The zip file has the arena models and pdf report generated)*

Q2)

Table

Description automatically generated

***Model:***

Graphical user interface

Description automatically generated with low confidence

***Parameters within each block:***

1. Create arrivals – create block 1

Graphical user interface, application

Description automatically generated

1. Workstation 1 – Process block 1

Graphical user interface, application

Description automatically generated

1. Workstation 2 – Process block 2

Graphical user interface, application

Description automatically generated

1. Workstation 3 – Process block 3

Graphical user interface, application

Description automatically generated

1. Workstation 4 – Process block 4

Graphical user interface

Description automatically generated

1. End - Dispose block

Graphical user interface, application

Description automatically generated

1. Failure spreadsheet

Table

Description automatically generated

1. Statistics spreadsheet

Graphical user interface, application

Description automatically generated

***Result:***

1. Percent time of each resource in failure state.

Table

Description automatically generated

1. Ending status.

Graphical user interface

Description automatically generated

# [*Q2\_ViralPanchal\_zipfile*](Q2_ViralPanchal.zip)

*(The zip file has the arena models and pdf report generated)*