## **Airport Terminal Security Checkpoint Simulator Black Box Test Plan**

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## Introduction

This test plan should test the boundary cases and error handling for when the simulator is given unexpected values. The application is begun by selecting Simulation Runner, run as java application; then the sliders are used to govern input and the desired number and percentages of passengers is entered and the "Start" button is selected.

Test ID	Description	Expected Results	Actual Results
Test 1:	,	Expected results are:	(FAIL)
Testing	Preconditions: None		Actual results are:
valid		Passengers: 500	
inputs in	Run: Simulation Runner	Checkpoints: 8	Passengers: 500
middle		Average Wait Time: 24.78	Checkpoints: 8
range	Enter: 500 for number of passengers;	minutes	Average Wait Time: 5.03
	Select: 8 for # Security Checkpoints;	Average Process Time: 1.91	minutes
(William	Enter: 10 for % Trusted Travelers	minutes	Average Process Time: 1.91
Mitchell)	Enter: 30 for % Fast Track Passengers		minutes
	Enter: 60 for % Ordinary Passengers		
	, ,		
	Animation speed to Fast		
	·		
	select Start		
Test 2:	Preconditions: None	Expected results are:	Actual results are:
Testing			
boundary	Run: Simulation Runner	Passengers: 10	Passengers: 10
inputs for		Checkpoints: 3	Checkpoints: 3
number	Enter: 10 for number of passengers;	Average Wait Time: 2.82	Average Wait Time: 2.82
of	Select: 3 for # Security Checkpoints;	minutes	minutes
checkpoi	Enter: 10 for % Trusted Travelers	Average Process Time: 1.97	Average Process Time: 1.97
nts	Enter: 30 for % Fast Track Passengers	minutes	minutes
	Enter: 60 for % Ordinary Passengers		
(William			
Mitchell)	Animation speed to Fast		
	select Start		
Test 3:	Preconditions: None	An alert box should appear	An alert box should appear
Testing		titled: "Simulation	titled: "Simulation
incorrect	Run: Simulation Runner	Initialization Error" with the	Initialization Error" with the
inputs for		text "There must be at least	text "There must be at least
number	Enter: -1 for number of passengers;	one passenger."	one passenger."
of	Select: 3 for # Security Checkpoints;		
passenge	Enter: 10 for % Trusted Travelers		
rs	Enter: 30 for % Fast Track Passengers		
	Enter: 60 for % Ordinary Passengers		
(William			
Mitchell)	Animation speed to Fast		
	select Start		

Test 4:	Preconditions: None	An alert box should appear	An alert box should appear
Testing	Run: Simulation Runner	titled: "Simulation	titled: "Simulation
incorrect		Initialization Error" with the	Initialization Error" with the
inputs for	Enter: 10 for number of passengers;	text "Number of	text "Number of
number	Select: 1 for # Security Checkpoints;	checkpoints must be at	checkpoints must be at
of	Enter: 10 for % Trusted Travelers	least 3 and at most 17."	least 3 and at most 17."
Checkpoi	Enter: 30 for % Fast Track Passengers		
nts	Enter: 60 for % Ordinary Passengers		
(William	Animation speed to Fast		
Mitchell)			
	select Start		
Test 5:	Preconditions: None	An alert box should appear	An alert box should appear
Testing		titled: "Simulation	titled: "Simulation
incorrect	Run: Simulation Runner	Initialization Error" with the	Initialization Error" with the
inputs for		text "Percents must sum to	text "Percents must sum to
percentag	Enter: 10 for number of passengers;	100."	100."
es of	Select: 3 for # Security Checkpoints;		
passenge	Enter: 5 for % Trusted Travelers		
r types	Enter: 30 for % Fast Track Passengers		
	Enter: 60 for % Ordinary Passengers		
(William			
Mitchell)	Animation speed to Fast		
	select Start		

## **Document Revision History**

Date	Author	Change Description
10/04/18	William	Created black box tests 1-5
10/21/18	William	Edited old BBT to reflect changes in course materials and added results
		of my simulation run