PredatorPreyScavenger Black Box Test Plan

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Date: 10/4/2015

Introduction

The PredatorPreyScavenger is started by running GUI (as shown in the design proposal).

Test ID	Description	Expected Results	Actual Results
Invalid Count 1 (Collin Marks	**Preconditions:** An initial window opens with the default values for species name and color of their population curves in the graph of a simulation run. Click close. For "Wolf" set the following values: Leave all other values the same! Count = -4 Click Start.	An empty graph is shown, the values in the simulation counts and factor text fields are shown enclose in a red, blue, and black box. Names are shown "Wolf", "Elk", "Magpie". A dialog box is shown stating "Population counts cannot be negative." Click OK. Close Program by clicking "Quit"	A dialog box is shown stating "Population counts cannot be negative." Program closes properly.
Invalid Count 2 (Collin Marks)	**Preconditions:** An initial window opens with the default values for species name and color of their population curves in the graph of a simulation run. Click close. For "Wolf" set the following values: Leave all other values the same! Count = four Click Start.	An empty graph is shown, the values in the simulation counts and factor text fields are shown enclose in a red, blue, and black box. Names are shown "Wolf", "Elk", "Magpie". A dialog box is shown stating "Initial population counts must be integers." Click OK. Close Program by clicking "Quit"	A dialog box is shown stating "Initial population counts must be integers." Program closes properly.
Invalid Word 1 (Collin Marks)	**Preconditions:** An initial window opens with the default values for species name and color of their population curves in the graph of a simulation run. Click close. For "Wolf" set the following values: Leave all other values the same! Birth Rate = word	An empty graph is shown, the values in the simulation counts and factor text fields are shown enclose in a red, blue, and black box. Names are shown "Wolf", "Elk", "Magpie". A dialog box is shown stating "Birth/death rates must be numbers."	A dialog box is shown stating "Birth/death rates must be numbers." Program closes properly.

	Click Start.	Click OK. Close Program by clicking "Quit"	
Invalid Word (Collin Marks)	**Preconditions:** An initial window opens with the default values for species name and color of their population curves in the graph of a simulation run. Click close. For "Wolf" set the following values: Leave all other values the same! Birth Rate = 23 Click Start	An empty graph is shown, the values in the simulation counts and factor text fields are shown enclose in a red, blue, and black box. Names are shown "Wolf", "Elk", "Magpie". A dialog box is shown stating "Birth/death rates must be between 0 and 1." Click OK. Close Program by clicking "Quit"	A dialog box is shown stating "Birth/death rates must be between 0 and 1." Program closes properly.
Valid Run (Collin Marks)	**Preconditions:** An initial window opens with the default values for species name and color of their population curves in the graph of a simulation run. Change Predator name to "Lynx", Prey name to "Rabbit", and Scavenger name to "Carrion Beetle". Change Predator color to purple, Prey color to yellow, and Scavenger color to green. Click close. For "Lynx" set the following values: Count = 11 Birth Rate = .00078 Death Rate = .33 For "Rabbit" set the following values: Count = 267 Birth Rate = .265 Death Rate = .0016 For "Carrion Beetle" set the following values: Count = 499 Birth Rate via predation = .000003 Death Rate = .2 Birth Rate from prey = .0007 Birth Rate from predators = .0008 Click Start.	An empty graph is shown, the values in the simulation counts and factor texts fields are shown enclosed in a purple, yellow, and green box respectively. Names are shown "Lynx", "Rabbit", and "Carrion Beetle". A graph is now shown. The new counts for "Lynx", "Rabbit" and "Carrion Beetle" are 136, 500, and 404 respectfully.	A graph is now shown. The new counts for "Lynx", "Rabbit" and "Carrion Beetle" are 136, 500, and 404 respectfully.

Document Revision History

Date	Author	Change Description
9/22/2015	Collin Marks	• Initial set up of black box test cases
10/4/2015	Collin Marks	• Testing of cases against GUI