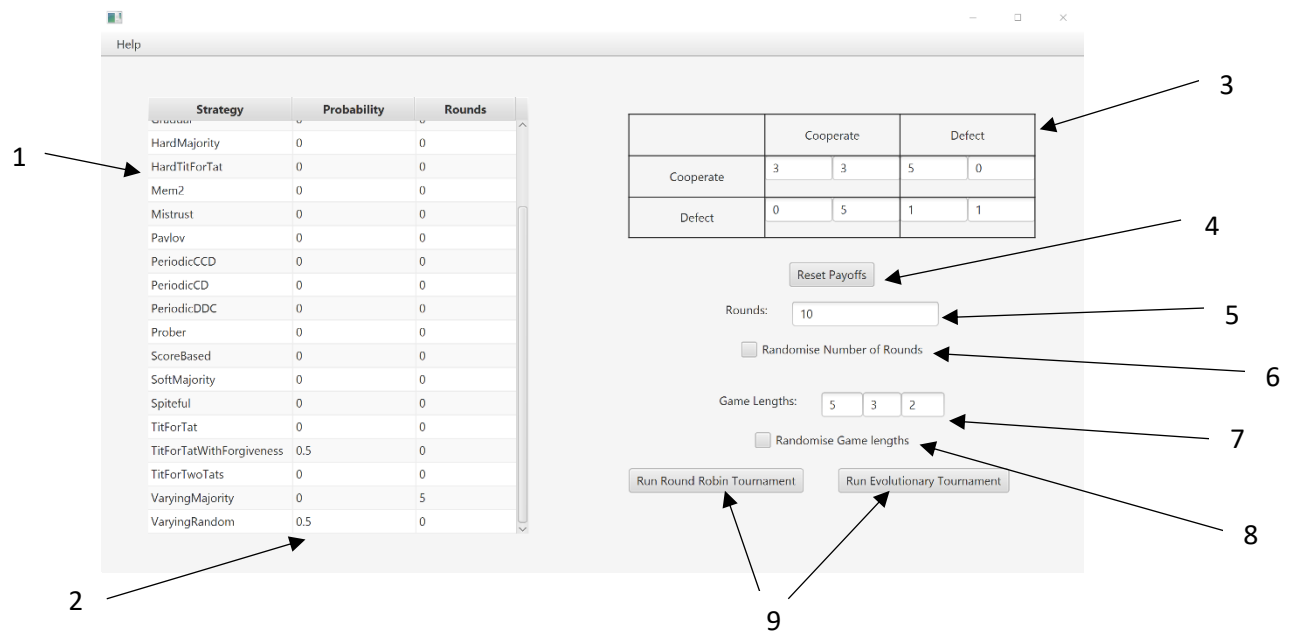# User Guide

Main Screen

This screen allows the user to configure the details of their tournament and choose which type of tournament they wish to run.

1. This table is used to select which strategies will participate in the tournament by highlighting them.
2. If the value in either the probability or rounds column is not 0 it can be changed by typing in the column.
3. This matrix shows the payoffs for each combination of decisions, they can be changed by typing in the boxes.
4. Pressing this button will return the payoffs to the default values (the ones pictured). The value can be changed by typing in the box.
5. This is the total number of rounds played between each pair of strategies.
6. This will set total rounds to a value between 1 and 100.
7. This is the number of rounds per game (each pairing plays three games together). The total of these values must be the same as the total rounds. The values can be changed by typing in the boxes.
8. This will randomise the length of each game, ensuring they still total to the number of total rounds chosen.
9. These buttons can be used to select which type of tournament will be run.

Round Robin Results Screen

1. This table shows the overall results of the tournament, the first entry is the winner, the second the runner up, etc. Points is the total points a strategy accumulated across the whole tournament.
2. This matrix shows the scores achieved by each strategy in each match.
3. This button launches the program window showing the detailed results of the tournament - the game lengths and the decisions made and points earned in each round of each match.
4. This button takes the information in the detailed results window as well as the score board and exports it to a CSV file.
5. This button closes the screen, returning the user to the main screen.
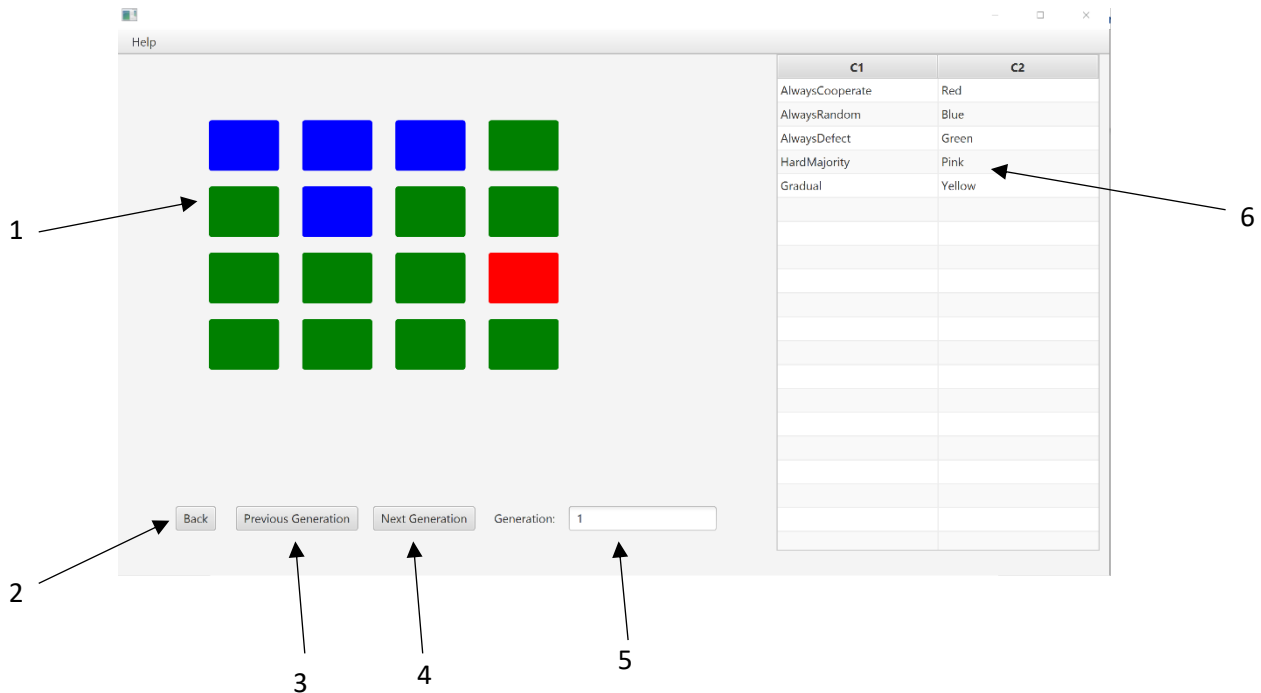
Detailed Results Screen

1

2
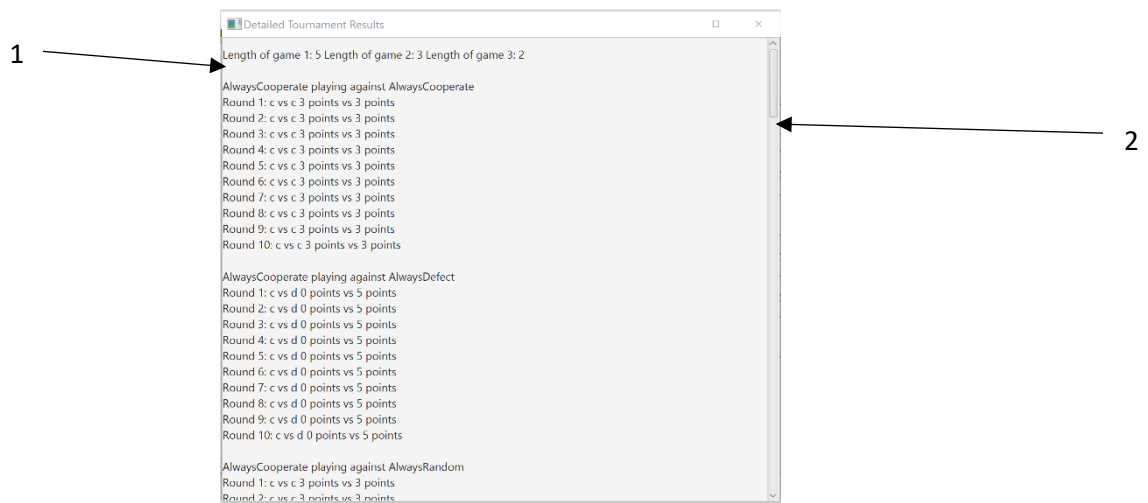
1. This screen shows the game lengths and the decisions made and points earned in each round of each match.
2. As there is a lot of information in this window it is scrollable.

Evolutionary Tournament Configuration Screen
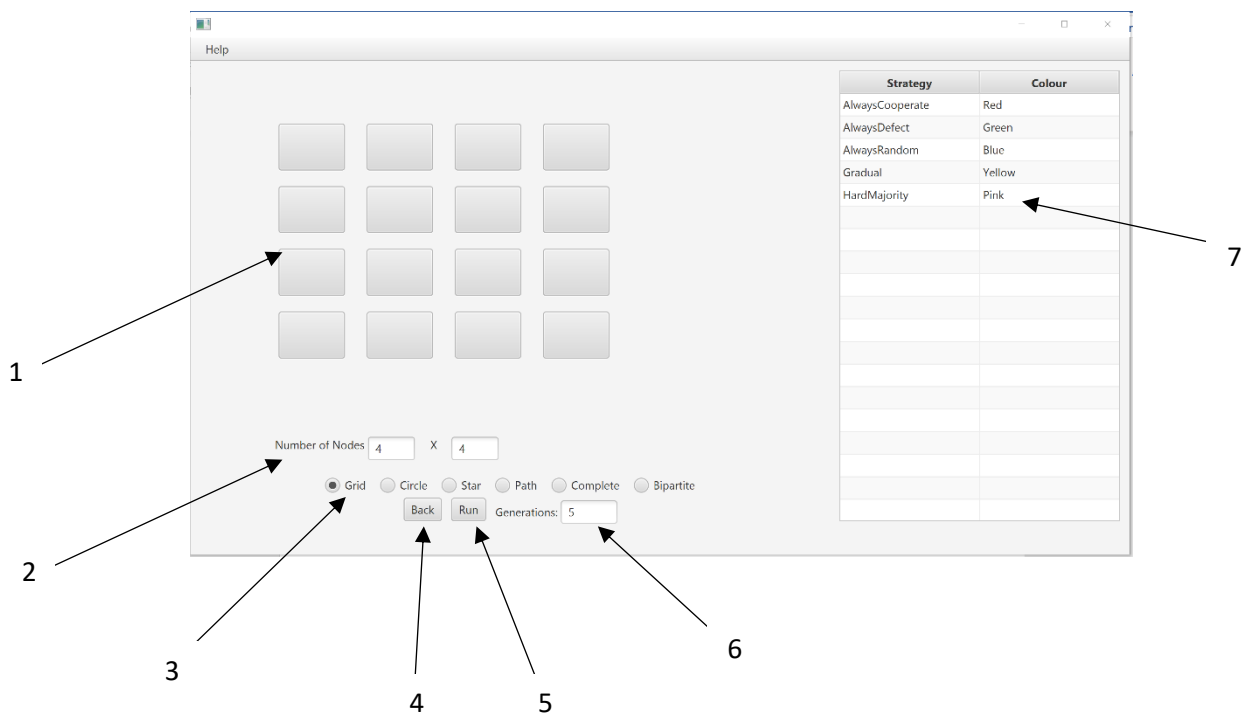
1. This is the graph that the tournament will be played on. Clicking on a node with a strategy highlighted in table 7 will assign that strategy to the node. The node will change colour to show this.
2. The number of nodes in the graph can be changed by typing in these boxes.
3. The type of graph used in the tournament can be changed by selecting one of these options.
4. This button takes the user back to the main screen.
5. This button runs the tournament and takes the user to the results screen.
6. The total number of generations run in the tournament can be changed by typing in this box.
7. This table contains all the strategies that can be entered into a tournament. Highlighting a strategy by clicking on it will allow the user to assign it to nodes in the graph.

Evolutionary Tournament Results Screen

C1	C2
AlwaysCooperate	Red
AlwaysRandom	Blue
AlwaysDefect	Green
HardMajority	Pink
Gradual	Yellow

1. This is the graph that the tournament results will be displayed on. It will show the state of the nodes at the generation shown in the generation box (4).
2. This button will return the user to the evolutionary tournament configuration screen.
3. This will change the generation results being displayed on the graph, decreasing the generation by 1.
4. This will change the generation results being displayed on the graph, increasing the generation by 1.
5. This will show the generation results currently being displayed on the graph. The user can skip to a specific generation by typing in this box.
6. This table acts as a key, showing the strategy that each colour corresponds to.