Testing

Informal Testing

Stuff in testing notes go here.

Formal Testing

Black-box testing

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test # | Unit | Test | Input | Expected Result | Actual Result |
| 1 | UBoard. InitDraughts | An array that has the standard draughts setup. | Empty TArray |  |  |
| 2 | UBoard. AddCounter | A counter at (x, y) in the array. | Empty TArray |  |  |
| 3 | UBoard. RemoveCounter | No counter at (x, y) in the array, but all other cells have counters. | Populated TArray |  |  |
| 4 | UBoard. ClearBoard | No counters in all cells within the array. | Populated TArray |  |  |
| 5 | UBoard. WhatPlayer | Function returning FALSE for player counters and TRUE for AI counters. | TArray populated with all counter types |  |  |
| 6 | UMove. MakeMove | A counter getting removed from one cell and added to another cell, while maintaining its original value. | 4 integers: old row, old column, new row and new column |  |  |
| 7 | UMove. CheckLegalMove | Function outputs TRUE if it is a legal move and FALSE if it is an illegal move. | TArray and 4 integers: old row, old column, new row and new column |  |  |
| 8 | UMove. PossibleLegalMoves | The function must return all the coordinates of all the legal moves for each counter. | TArray and 2 integers: row and column |  |  |
| 9 | UMove. AllPossibleLegalMoves | The function must return a list of all the arrays, which each contain the result of a legal move. | TArray and Boolean |  |  |
| 10 | UAI. BoardVal | The function must return an integer value for the board, which is dependent on the quantity of each counter on the board. | TArray with varying amounts of all counters. |  |  |
| 11 | UAI. Min | The function must output the board with the lowest value, evaluated by UAI.BoardVal. | Two TArrays |  |  |
| 12 | UAI. Max | The function must output the board with the highest value, evaluated by UAI.BoardVal. | Two TArrays |  |  |
| 13 | UAI. Minmax | The function must return the array for the next turn, based on the parameters that it was given. | TArray, Boolean and an integer (MaxDepth) |  |  |
| 14 | USaveLoad. Save | The function must output a save file with the value of each cell in the array and a value for the difficulty of the game. | TArray, difficulty (integer) and file name (string). |  |  |
| 15 | USaveLoad. Load | The function must load each counter in the save file to their respective cell in the array. It must also correctly set the difficulty specified in the save file. | File name (string) and difficulty (integer). |  |  |

++ MM test at the end (probably optional).