**Spreading of Fire Black Box Test Plan**

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**Introduction**

Provide a brief overview of your black box test plan. Describe how you would start your application.

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| **Test ID** | **Description/Preconditions** | **Expected Results** | **Actual Results** |
| **testGetState()** | Returns the state of the Cell object | The sent state when the Cell was instantiated | Cell.EMPTY |
| **testSetState()** | Sets the state of the Cell object | State should change to what we set it to | Cell.TREE |
| **testCopy()** | Returns a copy of the Cell | A copied cell | Cell c |
| **testSpread()** | Spreads fire based on 55% probability if the cell is a tree with fire around it. If the cell is on fire, burn out, and if the cell is empty, stay empty. Must copy all cells first so a chain effect does not occur. | Spreads within 5% margin of error of 55%; burns out if previously burning. | was between 50-60% when spreading, and on fire cells burnt out without intermediate spreading going on |
| **testGetGrid()** | Returns the 2D array of Cell objects | Cell cells[][] | Cell cells[][] |
| **testDone()** | Returns whether any trees are still burning | When burning, not done; when empty or tree, done. | When burning, not done; when empty or tree, done. |
| **testNextTimeStep()** | Call spread on every cell in the forest | When made to tree, Cell possibly catches fire. | The tree cells spread, and the empty ones stay empty. |

**Document Revision History**

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| **Date** | **Author** | **Change Description** |
| **9/15/2011** | Andrew, James | * First revision |
| **9/19/2011** | Andrew, James | * Iteration 1 |