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Name: Fixing the world

Description:

Assignment3.scm contains various methods, which when used in conjunction are able to manipulate a 2x2 Rubik’s Cube (‘World’). The world can be rotated along the x, y and z axis, and each state of the world is described using a list of 8 octants. When the world is rotated, a move history is updated. The method genStates calculates all possible states that can be reached in n moves (by using the generateSuccessorStates method which stores the result of all six possible rotations). Finally, the solveCube method calculates the moves needed to reach a solved state of the world (up to ~6 moves).

Note:

1. The operating system used was Ubuntu 14.10
2. Gambit (gsi) was used as the interpreter.
3. The version of the interpreter (gsi) used is v4.2.8.
4. (“?”) was chosen to represent the fact that solveCube requires additional move(s) to find the move needed to solve the world, as this is more informative than the (possibly standard) empty list.

Instructions:

1. To run using the automarker: ./mark.sh or gsi automarker.scm [SPEC] assignment3.scm
2. To run the unit tests. gsi unitTests.scm

List of files: assignment3.scm unitTests.scm