

MAZE GENERATION ALGORITHM

BINARY TREE ALGORITHM

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The algorithm:

The way the binary tree algorithm works is simple:

- 1) you choose two diagonal directions, North and East, North and West etc..(North and East is chosen in the code)
- 2)at each cell you choose a random direction out of these two.
- 3)you build a passage in that direction between the current cell and the neighbouring cell
- 4)you build a wall in the other direction that wasn't chosen between the current cell and the neighbouring cell.
- 5)if we are at the max North of the grid we are forced to choose East as choosing North will move us out of the grid space.
- 6)if we are at the max East of the grid we are forced to choose North as choosing East will move us out of the grid space.

Remarks:

- 1)this algorithm is faster but simpler than the backtracking algorithm.
- 2)it produces slightly simpler mazes.
- 3)its downside is the most North and most East sides will be spanned using only 1 corridor due to the diagonal bias of the algorithm.