

Cell record

Cell:

- id: Int
- lineage: String
- envelope: Polygon

Examples

Algorithms

Algorithm 1 GETNEXTCELLWITHEDGES algorithm

Require:

Quadtree with cell envelopes \mathcal{Q} and Map of cells and their edge count \mathcal{M} .

```
1: function GETNEXTCELLWITHEDGES( $\mathcal{Q}$ ,  $\mathcal{M}$ )
2:    $\mathcal{C} \leftarrow$  list of empty cells in  $\mathcal{M}$ 
3:   for each emptyCell in  $\mathcal{C}$  do
4:     initialize cellList with emptyCell
5:     done  $\leftarrow$  false
6:     repeat
7:        $c \leftarrow$  last cell in cellList
8:       cells  $\leftarrow$  GETCELLSINCORNER( $\mathcal{Q}$ ,  $c$ )            $\triangleright$  return 3 cells
9:       if a cell in cells has edges then
10:        output (cellList, cell)
11:        done  $\leftarrow$  true
12:      else
13:        nextCell  $\leftarrow$  the cell with the greatest level in cells
14:        add nextCell to cellList
15:      end if
16:    until done
17:  end for
18: end function
```
