Start GameOfLife

OUTPUT Print ‘brief description of game, rules and how to use program’.

INPUT selection from selection window

CASE selection OF

random: OUTPUT‘enter probability of cells being alive’

INPUT probability

OUTPUT random plot

configuration 1: OUTPUT config 1 plot

configuration 2: OUTPUT config 2 plot

configuration 3: OUTPUT config 3 plot

etc

ENDCASE

A (hidden array) = zero array (50\*50)

B (2nd array) = random(A) < probability

FOR i = 1 to 100 generations in steps of 1

neighbours = FUNCTION(count cells in B array)

IF state = 1 alive & neighbours < 2

next gen = 0 dead

ELSE IF state = 1 alive & neighbours > 3

next gen = 0 dead

ELSE IF state = 1 alive & neighbours == 2 OR neighbours == 3

next gen = 1 alive

ELSE IF state = 0 dead & neighbours == 3

next gen = 1 alive(birth)

ELSE next gen = state

ENDIF

OUTPUT plot of B

title = game of life

print live generation number

ENDFOR

FUNCTION count cells

Count the 8 neighbours around each cell.

neighbours = top left + top + top right + right + bottom right + bottom + bottom left + left

END FUNCTION

Finish

References

1. Counting cells + applying rules

<https://github.com/d-shiri/game-of-life>

1. Research + configurations

<https://en.wikipedia.org/wiki/Conway%27s_Game_of_Life>

1. Help on implementation + configurations.

<https://www.mathworks.com/content/dam/mathworks/mathworks-dot-com/moler/exm/chapters/life.pdf>