Université Catholique de Louvain

INGI1131

Concepts of Computer Languages

Zombieland

Course Project

Group 43

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Introduction

Context : Zombie apocalypse, mutants
Why : need for food medicine, ressources
Task : simulator to reduce human loss (+ pass time)

1 Architecture and design

1.1 Components

diagramme des interactions port objects : states and messages + data flow variables

1.2 Controller

states + responsibilities

1.3 Cell

room == grid of cells
states + responsibilities

1.4 Players

states + responsibilities
interaction between them Brave and zombies in contiguous cells :
- if bullets left then
- - if brave facing, brace wins and zombie dies
- - else if brave not facing then
- - - if zombie facing, brave dies and game over
- - - else nothing happens
(petits dessins)
fights do not count as turns (vital) and are executed automatically

1.4.1 Brave

depends on the player
no shooting
bullets no items, because of combats
no mandatory taking
door enabled if count equal or superior to goal

1.4.2 Zombies

AI : try moving 3 turns in the same direction, destroy objects 20 % of the time, change direction randomly if obstacle. If brave, attempt to kill her.

1.5 Other

QTk?
(Gameover if winning impossible because of lack of objects)

2 Concurrency issues

synchronization of the turns between the brave and the zombies
synchronization between the zombies : not on the same cell

Conclusion

should fulfill the requirements and provide some help to survive