# Simulation Laby

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# Contents

# Chapter 1

# Hierarchical Index

## 1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

# Chapter 2

# Class Index

## 2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

# Chapter 3

# File Index

## 3.1 File List

Here is a list of all files with brief descriptions:

# Chapter 4

# Class Documentation

## 4.1 AutomateGraph Class Reference

### Public Member Functions

- function AutomateGraph ()
- function FSM2Automata (in obj, in nameFileFSM)
- function vector2matrices (in obj)
- function addWord2Langage (in obj, in word)
- function adaptTourLangage (in obj)
- function structAutomata2vectorAutomata (in obj)
- function matrices2vector (in obj)
- function PathResearche (in obj, in initialState, in studiedState)
- function vector2structAutomata (in obj)
- function export2DESUMA (in obj, in file)
- function accessibilityAutomate (in obj)

### Public Attributes

- Property state
- Property transition
- Property matrixTrans
- Property langage
- Property vector

### 4.1.1 Constructor & Destructor Documentation

#### 4.1.1.1 AutomateGraph()

```
function AutomateGraph ( )
```

## 4.1.2 Member Function Documentation

### 4.1.2.1 accessibilityAutomate()

```
function accessibilityAutomate (
             in obj )
```

### 4.1.2.2 adaptTourLangage()

```
function adaptTourLangage (
             in obj )
```

### 4.1.2.3 addWord2Langage()

```
function addWord2Langage (
             in obj,
             in word )
```

### 4.1.2.4 export2DESUMA()

```
function export2DESUMA (
             in obj,
             in file )
```

### 4.1.2.5 FSM2Automata()

```
function FSM2Automata (
             in obj,
             in nameFileFSM )
```

### 4.1.2.6 matrices2vector()

```
function matrices2vector (
             in obj )
```

#### 4.1.2.7 PathResearche()

```
function PathResearche (
             in obj,
             in initialState,
             in studiedState )
```

#### 4.1.2.8 structAutomata2vectorAutomata()

```
function structAutomata2vectorAutomata (
             in obj )
```

#### 4.1.2.9 vector2matrices()

```
function vector2matrices (
             in obj )
```

#### 4.1.2.10 vector2structAutomata()

```
function vector2structAutomata (
             in obj )
```

### 4.1.3 Member Data Documentation

#### 4.1.3.1 langage

```
Property langage
```

#### 4.1.3.2 matrixTrans

```
Property matrixTrans
```

#### 4.1.3.3 state

```
Property state
```

#### 4.1.3.4 transition

```
Property transition
```

#### 4.1.3.5 vector

```
Property vector
```

The documentation for this class was generated from the following file:

- automaton/AutomateGraph.m

## 4.2 Automaton Class Reference

### Public Member Functions

- function Automaton (in varargin)
- function CreationFonctionTransitionEnsembleDesParties (in obj)
- function Evolution (in obj, in Conditions, in Initial)
- function AjoutTransitionStable (in obj)
- function PathResearche (in obj, in initialState, in studiedState)
- function AutomateAccessible (in obj, in initialState, in studiedState)
- function AutomateAccessibleIncertain (in obj, in Etat_initial, in Etat)
- function Ensemble2Etats (in obj, in Ensemble)
- function EnsemblesContenantEtat (in obj, in Etats)
- function Etats2Ensemble (in obj, in Etats)

### Public Attributes

- Property MatricesTransition
- Property Fct
- Property NomsEvenements

### 4.2.1 Constructor & Destructor Documentation

#### 4.2.1.1 Automaton()

```
function Automaton (
             in varargin )
```

### 4.2.2 Member Function Documentation

#### 4.2.2.1 AjoutTransitionStable()

```
function AjoutTransitionStable (
             in obj )
```

#### 4.2.2.2 AutomateAccessible()

```
function AutomateAccessible (
             in obj,
             in initialState,
             in studiedState )
```

#### 4.2.2.3 AutomateAccessibleIncertain()

```
function AutomateAccessibleIncertain (
             in obj,
             in Etat_initial,
             in Etat )
```

#### 4.2.2.4 CreationFonctionTransitionEnsembleDesParties()

```
function CreationFonctionTransitionEnsembleDesParties (
             in obj )
```

#### 4.2.2.5 Ensemble2Etats()

```
function Ensemble2Etats (
             in obj,
             in Ensemble )
```

#### 4.2.2.6 EnsemblesContenantEtat()

```
function EnsemblesContenantEtat (
             in obj,
             in Etats )
```

#### 4.2.2.7 Etats2Ensemble()

```
function Etats2Ensemble (
             in obj,
             in Etats )
```

#### 4.2.2.8 Evolution()

```
function Evolution (
             in obj,
             in Conditions,
             in Initial )
```

#### 4.2.2.9 PathResearche()

```
function PathResearche (
             in obj,
             in initialState,
             in studiedState )
```

### 4.2.3 Member Data Documentation

#### 4.2.3.1 Fct

```
Property Fct
```

#### 4.2.3.2 MatricesTransition

```
Property MatricesTransition
```

#### 4.2.3.3 NomsEvenements

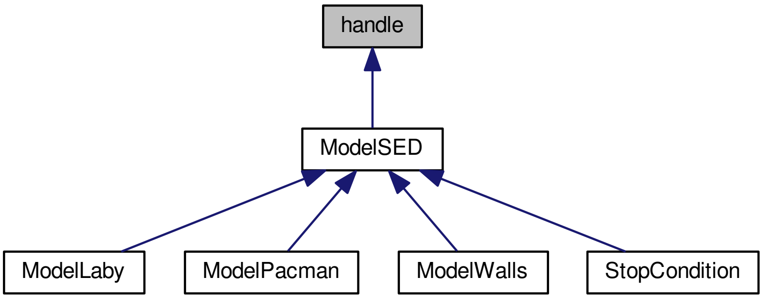
```
Property NomsEvenements
```

The documentation for this class was generated from the following file:

- automaton_nd/Automaton.m

## 4.3 handle Class Reference

Inheritance diagram for handle:



The documentation for this class was generated from the following file:

- ModelSED.m

## 4.4 Labyrinthe Class Reference

### Public Member Functions

- function Labyrinthe (in murs_Verticaux, in murs_Horizontaux, in etats_Initiaux, in etats_Finaux)
- function Pas_a_pas (in obj)
- function jusqu_au_mur (in obj)
- function incertain (in obj)
- function affichage (in obj)

### Public Attributes

- Property MursVerticaux
- Property MursHorizontaux
- Property Etats_Initiaux
- Property Etats_Finaux

## 4.4.1 Constructor & Destructor Documentation

### 4.4.1.1 Labyrinthe()

```
function Labyrinthe (
             in murs_Verticaux,
             in murs_Horizontaux,
             in etats_Initiaux,
             in etats_Finaux )
```

## 4.4.2 Member Function Documentation

### 4.4.2.1 affichage()

```
function affichage (
             in obj )
```

### 4.4.2.2 incertain()

```
function incertain (
             in obj )
```

### 4.4.2.3 jusqu_au_mur()

```
function jusqu_au_mur (
             in obj )
```

### 4.4.2.4 Pas_a_pas()

```
function Pas_a_pas (
             in obj )
```

## 4.4.3 Member Data Documentation

#### 4.4.3.1 Etats_Finaux

```
Property Etats_Finaux
```

#### 4.4.3.2 Etats_Initiaux

```
Property Etats_Initiaux
```

#### 4.4.3.3 MursHorizontaux

```
Property MursHorizontaux
```

#### 4.4.3.4 MursVerticaux

```
Property MursVerticaux
```

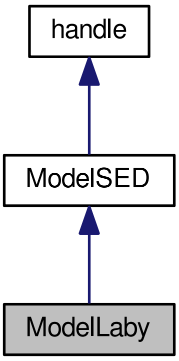
The documentation for this class was generated from the following file:

- automaton_nd/Labyrinthe.m

## 4.5 ModelLaby Class Reference

Class which contains the "fmg" structure of the labyrinth for 1 player

Inheritance diagram for ModelLaby:



## Public Member Functions

- function ModelLaby (in wallsV_init, in wallsH_init, in pacman_init, in escape_init)

  *Class constructor of.*
- function f (in obj, in in)
- function m (in obj, in nextState, in init)
- function g (in obj)
- virtual g (in obj, in in)

## Public Attributes

- Property presentState

  *Data Structure of the current state of Labyrinth. It contains "wallsV", "wallsH" (2 matrix for the walls), "escape" and "pacman", a Cartesian position of current position of escape and pacman and 'wallsAroundPacman' A vector indicating the presence of a wall around the Pacman for the 4 directions Up Down Left Right.*
- Property initialState

  *Data Structure of the initial state of Labyrinth. It contains "wallsV", "wallsH" (2 matrix for the walls), "escape" and "pacman", a Cartesian position of current position of escape and pacman and 'wallsAroundPacman' A vector indicating the presence of a wall around the Pacman for the 4 directions Up Down Left Right.*

## 4.5.1 Detailed Description

Class which contains the "fmg" structure of the labyrinth for 1 player

Input : necessary information for compute the next state of the model

Output : output's action of the model State : minimal information necessary who evolute

## 4.5.2 Constructor & Destructor Documentation

### 4.5.2.1 ModelLaby()

```
function ModelLaby (
              in wallsV_init,
              in wallsH_init,
              in pacman_init,
              in escape_init )
```

Class constructor of.

**Parameters**

| | |
|---|---|
| *wallsV_init* | Contain a matrix (N, N-1) of Initial Vertical Walls. |
| *wallsH_init* | Contain a matrix (N-1, N) of Initial Horizontal Walls. |
| *pacman_init* | Contain a vector (x, y) of Initial Position of Pacman. |
| *escape_init* | Contain a vector (x, y) of Escape's Position. |

**Returns**

instance of the ModelLaby class.

## 4.5.3 Member Function Documentation

### 4.5.3.1 f()

```
function f (
             in obj,
             in in )  [virtual]
```

Reimplemented from ModelSED.

### 4.5.3.2 g() [1/2]

```
virtual g (
             in obj,
             in in )  [virtual], [inherited]
```

### 4.5.3.3 g() [2/2]

```
function g (
             in obj )
```

### 4.5.3.4 m()

```
function m (
             in obj,
             in nextState,
             in init )  [virtual]
```

Reimplemented from ModelSED.

## 4.5.4 Member Data Documentation

#### 4.5.4.1 initialState

```
Property initialState
```

Data Structure of the initial state of Labyrinth. It contains "wallsV", "wallsH" (2 matrix for the walls), "escape" and "pacman", a Cartesian position of current position of escape and pacman and 'wallsAroundPacman' A vector indicating the presence of a wall around the Pacman for the 4 directions Up Down Left Right.

#### 4.5.4.2 presentState

```
Property presentState
```

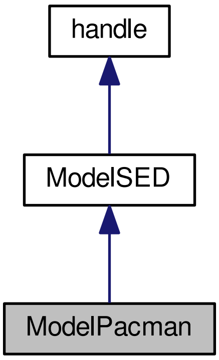
Data Structure of the current state of Labyrinth. It contains "wallsV", "wallsH" (2 matrix for the walls), "escape" and "pacman", a Cartesian position of current position of escape and pacman and 'wallsAroundPacman' A vector indicating the presence of a wall around the Pacman for the 4 directions Up Down Left Right.

The documentation for this class was generated from the following file:

- ModelLaby.m

## 4.6 ModelPacman Class Reference

Inheritance diagram for ModelPacman:



### Public Member Functions

- function ModelPacman (in initialValue)
- function f (in obj, in in)
- function m (in obj, in nextState, in init)
- function g (in obj)
- virtual g (in obj, in in)

## Public Attributes

- Property presentState
- Property initialState

## 4.6.1 Constructor & Destructor Documentation

### 4.6.1.1 ModelPacman()

```
function ModelPacman (
             in initialValue )
```

## 4.6.2 Member Function Documentation

### 4.6.2.1 f()

```
function f (
             in obj,
             in in )  [virtual]
```

Reimplemented from ModelSED.

### 4.6.2.2 g() [1/2]

```
virtual g (
             in obj,
             in in )  [virtual], [inherited]
```

### 4.6.2.3 g() [2/2]

```
function g (
             in obj )
```

#### 4.6.2.4 m()

```
function m (
             in obj,
             in nextState,
             in init )  [virtual]
```

Reimplemented from ModelSED.

### 4.6.3 Member Data Documentation

#### 4.6.3.1 initialState

```
Property initialState
```

#### 4.6.3.2 presentState

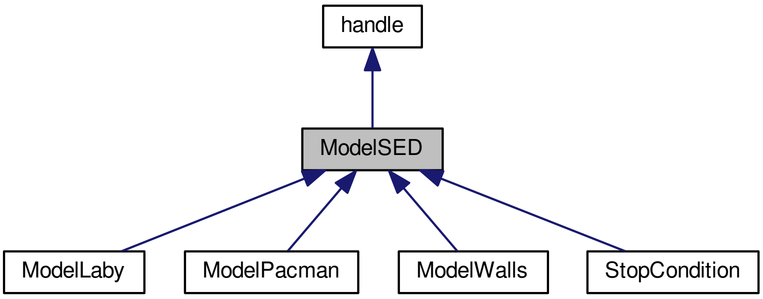
```
Property presentState
```

The documentation for this class was generated from the following file:

- ModelPacman.m

## 4.7 ModelSED Class Reference

Inheritance diagram for ModelSED:



## Public Member Functions

- virtual f (in obj, in in)
- virtual m (in obj, in nextState, in init)
- virtual g (in obj, in in)

## Public Attributes

- Property presentState
- Property initialState

## 4.7.1 Member Function Documentation

### 4.7.1.1 f()

```
virtual f (
             in obj,
             in in )  [virtual]
```

Reimplemented in ModelLaby, and ModelPacman.

### 4.7.1.2 g()

```
virtual g (
             in obj,
             in in )  [virtual]
```

### 4.7.1.3 m()

```
virtual m (
             in obj,
             in nextState,
             in init )  [virtual]
```

Reimplemented in ModelPacman, ModelLaby, ModelWalls, and StopCondition.

## 4.7.2 Member Data Documentation

#### 4.7.2.1 initialState

```
Property initialState
```

#### 4.7.2.2 presentState

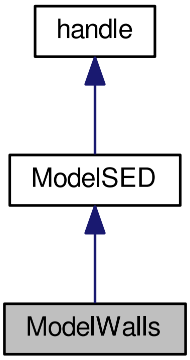
```
Property presentState
```

The documentation for this class was generated from the following file:

- ModelSED.m

## 4.8 ModelWalls Class Reference

Inheritance diagram for ModelWalls:



### Public Member Functions

- function ModelWalls (in initValue)
- function f (in obj)
- function m (in obj, in nextState, in init)
- function g (in obj)
- virtual f (in obj, in in)
- virtual g (in obj, in in)

### Public Attributes

- Property presentState
- Property initialState
- Property i
- Property val

## 4.8.1 Constructor & Destructor Documentation

### 4.8.1.1 ModelWalls()

```
function ModelWalls (
             in initValue )
```

## 4.8.2 Member Function Documentation

### 4.8.2.1 f() [1/2]

```
virtual f (
             in obj,
             in in )  [virtual], [inherited]
```

Reimplemented in ModelLaby, and ModelPacman.

### 4.8.2.2 f() [2/2]

```
function f (
             in obj )
```

### 4.8.2.3 g() [1/2]

```
virtual g (
             in obj,
             in in )  [virtual], [inherited]
```

### 4.8.2.4 g() [2/2]

```
function g (
             in obj )
```

#### 4.8.2.5 m()

```
function m (
            in obj,
            in nextState,
            in init )  [virtual]
```

Reimplemented from ModelSED.

### 4.8.3 Member Data Documentation

#### 4.8.3.1 i

```
Property i
```

#### 4.8.3.2 initialState

```
Property initialState
```

#### 4.8.3.3 presentState

```
Property presentState
```

#### 4.8.3.4 val

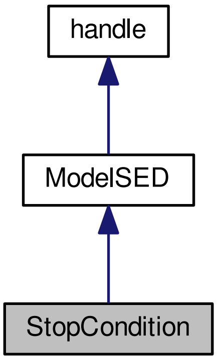
```
Property val
```

The documentation for this class was generated from the following file:

- ModelWalls.m

## 4.9 StopCondition Class Reference

Inheritance diagram for StopCondition:



### Public Member Functions

- function StopCondition (in initCondition)
- function f (in obj, in noEscape, in pacmanWallsBreak)
- function m (in obj, in nextState, in init)
- function g (in obj)
- virtual f (in obj, in in)
- virtual g (in obj, in in)

### Public Attributes

- Property presentState
- Property initialState

### 4.9.1 Constructor & Destructor Documentation

#### 4.9.1.1 StopCondition()

```
function StopCondition (
             in initCondition )
```

### 4.9.2 Member Function Documentation

#### 4.9.2.1 f() [1/2]

```
virtual f (
             in obj,
             in in )  [virtual], [inherited]
```

Reimplemented in ModelLaby, and ModelPacman.

#### 4.9.2.2 f() [2/2]

```
function f (
             in obj,
             in noEscape,
             in pacmanWallsBreak )
```

#### 4.9.2.3 g() [1/2]

```
virtual g (
             in obj,
             in in )  [virtual], [inherited]
```

#### 4.9.2.4 g() [2/2]

```
function g (
             in obj )
```

#### 4.9.2.5 m()

```
function m (
             in obj,
             in nextState,
             in init )  [virtual]
```

Reimplemented from ModelSED.

### 4.9.3 Member Data Documentation

#### 4.9.3.1 initialState

```
Property initialState
```

#### 4.9.3.2 presentState

```
Property presentState
```

The documentation for this class was generated from the following file:

- StopCondition.m

## 4.10 Wrapper Class Reference

### Public Member Functions

- function Wrapper (in inSize, in outSize, in initLaby, in initWalls, in initPac, in initStop)
- function updateConnexion (in obj, in indBit, in value)
- function init (in obj)
- function orderer (in obj, in vectIn)
- function get_stop (in obj)
- function get_out (in obj)

### Public Attributes

- Property wallsBit
- Property pacmanBit
- Property modelLaby
- Property commandWalls
- Property commandPacman
- Property stopCondition
- Property in
- Property out
- Property stop
- Property whoPlay

### 4.10.1 Constructor & Destructor Documentation

#### 4.10.1.1 Wrapper()

```
function Wrapper (
            in inSize,
            in outSize,
            in initLaby,
            in initWalls,
            in initPac,
            in initStop )
```

### 4.10.2 Member Function Documentation

#### 4.10.2.1 get_out()

```
function get_out (
            in obj )
```

#### 4.10.2.2 get_stop()

```
function get_stop (
            in obj )
```

#### 4.10.2.3 init()

```
function init (
            in obj )
```

#### 4.10.2.4 orderer()

```
function orderer (
            in obj,
            in vectIn )
```

#### 4.10.2.5 updateConnexion()

```
function updateConnexion (
            in obj,
            in indBit,
            in value )
```

### 4.10.3 Member Data Documentation

#### 4.10.3.1 commandPacman

```
Property commandPacman
```

#### 4.10.3.2 commandWalls

```
Property commandWalls
```

#### 4.10.3.3 in

```
Property in
```

#### 4.10.3.4 modelLaby

```
Property modelLaby
```

#### 4.10.3.5 out

```
Property out
```

#### 4.10.3.6 pacmanBit

```
Property pacmanBit
```

#### 4.10.3.7 stop

```
Property stop
```

#### 4.10.3.8 stopCondition

```
Property stopCondition
```

#### 4.10.3.9 wallsBit

```
Property wallsBit
```

#### 4.10.3.10 whoPlay

```
Property whoPlay
```

The documentation for this class was generated from the following file:

- Wrapper.m

# Chapter 5

# File Documentation

## 5.1 automaton/AutomateGraph.m File Reference

### Classes

- class AutomateGraph

## 5.2 automaton/mainLaby.m File Reference

## 5.3 automaton/modelGenerator/AutomatonSchedulingCreation.m File Reference

### Functions

- function ()

### 5.3.1 Function Documentation

#### 5.3.1.1 function()

```
function ( )
```

## 5.4 automaton/modelGenerator/AutomatonStrutureLabyCreation.m File Reference

### Functions

- function AutomatonStrutureLabyCreation (in labySize, in playerPosition, in escapePosition)

### 5.4.1 Function Documentation

#### 5.4.1.1 AutomatonStrutureLabyCreation()

```
function AutomatonStrutureLabyCreation (
             in labySize,
             in playerPosition,
             in escapePosition )
```

## 5.5 automaton/modelGenerator/AutomatonWallsContraintsCreation.m File Reference

### Functions

- function AutomatonWallsContraintsCreation (in verticalsWalls, in horizontalsWalls, in FirstWallsMove)

### 5.5.1 Function Documentation

#### 5.5.1.1 AutomatonWallsContraintsCreation()

```
function AutomatonWallsContraintsCreation (
             in verticalsWalls,
             in horizontalsWalls,
             in FirstWallsMove )
```

## 5.6 automaton/modelGenerator/generer_lab.m File Reference

### Functions

- function generer_lab (in Matrice_Horizontale, in Matrice_Verticale)

### 5.6.1 Function Documentation

#### 5.6.1.1 generer_lab()

```
function generer_lab (
             in Matrice_Horizontale,
             in Matrice_Verticale )
```

## 5.7 automaton/modelGenerator/modelGenerator.m File Reference

## 5.8 automaton/modelGenerator/Plan_desumaFunctions.m File Reference

### Functions

- function writeStates (in prefix, in nbrOfStates, in initialIndice, in markedStatesIndices)
- function writeTransitions (in prefix, in datas)
- function SaveDESUMAFile (in transitionsString, in statesString, in fileName)
- function AutomatonStrutureLabyCreation (in labySize, in playerPosition, in escapePosition)
- function ()

### 5.8.1 Function Documentation

#### 5.8.1.1 AutomatonStrutureLabyCreation()

```
function AutomatonStrutureLabyCreation (
             in labySize,
             in playerPosition,
             in escapePosition )
```

#### 5.8.1.2 function()

```
function ( )
```

#### 5.8.1.3 SaveDESUMAFile()

```
function SaveDESUMAFile (
             in transitionsString,
             in statesString,
             in fileName )
```

#### 5.8.1.4 writeStates()

```
function writeStates (
             in prefix,
             in nbrOfStates,
             in initialIndice,
             in markedStatesIndices )
```

#### 5.8.1.5 writeTransitions()

```
function writeTransitions (
             in prefix,
             in datas )
```

## 5.9 automaton/modelGenerator/SaveDESUMAFile.m File Reference

### Functions

- function SaveDESUMAFile (in transitionsString, in statesString, in fileName)

### 5.9.1 Function Documentation

#### 5.9.1.1 SaveDESUMAFile()

```
function SaveDESUMAFile (
             in transitionsString,
             in statesString,
             in fileName )
```

## 5.10 automaton/modelGenerator/writeStates.m File Reference

### Functions

- function writeStates (in prefix, in nbrOfStates, in initialIndice, in markedStatesIndices)

### 5.10.1 Function Documentation

#### 5.10.1.1 writeStates()

```
function writeStates (
             in prefix,
             in nbrOfStates,
             in initialIndice,
             in markedStatesIndices )
```

## 5.11 automaton/modelGenerator/writeTransitions.m File Reference

### Functions

- function writeTransitions (in prefix, in datas)

### 5.11.1 Function Documentation

#### 5.11.1.1 writeTransitions()

```
function writeTransitions (
             in prefix,
             in datas )
```

## 5.12 automaton/optimalCommand/creationMatricetransition.m File Reference

### Functions

- function creationMatricetransition (in nameOfFileFSM, in cellOrder)

### 5.12.1 Function Documentation

#### 5.12.1.1 creationMatricetransition()

```
function creationMatricetransition (
             in nameOfFileFSM,
             in cellOrder )
```

## 5.13 automaton/optimalCommand/getStateTransitionFSM.m File Reference

### Functions

- function getStateTransitionFSM (in nameOfFileFSM)

### 5.13.1 Function Documentation

#### 5.13.1.1 getStateTransitionFSM()

```
function getStateTransitionFSM (
             in nameOfFileFSM )
```

## 5.14 automaton/optimalCommand/getStateTransitionTXT.m File Reference

### Functions

- function getStateTransitionTXT (in nameOfFileTXT, in ST, in SP)

### 5.14.1 Function Documentation

#### 5.14.1.1 getStateTransitionTXT()

```
function getStateTransitionTXT (
             in nameOfFileTXT,
             in ST,
             in SP )
```

## 5.15 automaton/optimalCommand/main.m File Reference

## 5.16 main.m File Reference

## 5.17 automaton/optimalCommand/optimalCommand.m File Reference

### Functions

- function optimalCommand (in transitionsMatrix, in s_init, in s_final)

### 5.17.1 Function Documentation

#### 5.17.1.1 optimalCommand()

```
function optimalCommand (
             in transitionsMatrix,
             in s_init,
             in s_final )
```

## 5.18 automaton/optimalCommand/ParcourirMatricesTransitions.m File Reference

### Functions

- function ParcourirMatricesTransitions (in MatricesTransition, in Poids)

### 5.18.1 Function Documentation

#### 5.18.1.1 ParcourirMatricesTransitions()

```
function ParcourirMatricesTransitions (
             in MatricesTransition,
             in Poids )
```

## 5.19 automaton/optimalCommand/rafineAutomaton.m File Reference

## 5.20 automaton/optimalCommand/rafineAutomatonClass.m File Reference

### Functions

- function rafineAutomatonClass (in A, in paternName)

### 5.20.1 Function Documentation

#### 5.20.1.1 rafineAutomatonClass()

```
function rafineAutomatonClass (
             in A,
             in paternName )
```

## 5.21 automaton/ParrallelComposition.m File Reference

### Functions

- function ParrallelComposition (in A1, in A2)

### 5.21.1 Function Documentation

#### 5.21.1.1 ParrallelComposition()

```
function ParrallelComposition (
             in A1,
             in A2 )
```

## 5.22 automaton_nd/Automaton.m File Reference

### Classes

- class Automaton

## 5.23 automaton_nd/Labyrinthe.m File Reference

### Classes

- class Labyrinthe

## 5.24 automaton_nd/modi_main.m File Reference

## 5.25 CreatePituresAndVideo.m File Reference

### Functions

- function CreatePituresAndVideo (in n, in escape_i, in labyState)

### 5.25.1 Function Documentation

#### 5.25.1.1 CreatePituresAndVideo()

```
function CreatePituresAndVideo (
             in n,
             in escape_i,
             in labyState )
```

## 5.26 CreatePituresAndVideo_textured.m File Reference

### Functions

- function CreatePituresAndVideo_textured (in n, in escape_i, in labyState)

### 5.26.1 Function Documentation

#### 5.26.1.1 CreatePituresAndVideo_textured()

```
function CreatePituresAndVideo_textured (
            in n,
            in escape_i,
            in labyState )
```

## 5.27 figure_Laby.m File Reference

### Functions

- function figure_Laby (in varargin)
- function figure_Laby_OpeningFcn (in hObject, in eventdata, in handles, in varargin)
- function figure_Laby_OutputFcn (in hObject, in eventdata, in handles)
- function ui_Callback (in hObject, in eventdata, in handles)
- function connect_Callback (in hObject, in eventdata, in handles)
- function createUIPacman (in handles)
- function createUIWalls (in handles)
- function createUIEscape (in handles)
- function updateUI (in handles, in out)
- function updateUIActiveCammand (in handles)
- function updateUIButton (in handles)
- function updateUIPlayer (in handles, in strPlayer, in position)
- function updateUIEscape (in elementToSet, in boolState)
- function updateUIWallsAround (in handles, in strElement, in wallsAround)
- function updateUIWalls (in wallsUI, in vertWalls, in horizWalls)
- function isOne (in boolCond)
- function updatePresenceDetectorDisplay (in elementToSet, in boolCondition)
- function resetUIConnection (in handles)

### 5.27.1 Function Documentation

#### 5.27.1.1 connect_Callback()

```
function connect_Callback (
             in hObject,
             in eventdata,
             in handles )
```

#### 5.27.1.2 createUIEscape()

```
function createUIEscape (
             in handles )
```

#### 5.27.1.3 createUIPacman()

```
function createUIPacman (
             in handles )
```

#### 5.27.1.4 createUIWalls()

```
function createUIWalls (
             in handles )
```

#### 5.27.1.5 figure_Laby()

```
function figure_Laby (
             in varargin )
```

#### 5.27.1.6 figure_Laby_OpeningFcn()

```
function figure_Laby_OpeningFcn (
             in hObject,
             in eventdata,
             in handles,
             in varargin )
```

#### 5.27.1.7 figure_Laby_OutputFcn()

```
function figure_Laby_OutputFcn (
             in hObject,
             in eventdata,
             in handles )
```

#### 5.27.1.8 isOne()

```
function isOne (
             in boolCond )
```

#### 5.27.1.9 resetUIConnection()

```
function resetUIConnection (
             in handles )
```

#### 5.27.1.10 ui_Callback()

```
function ui_Callback (
             in hObject,
             in eventdata,
             in handles )
```

#### 5.27.1.11 updatePresenceDetectorDisplay()

```
function updatePresenceDetectorDisplay (
             in elementToSet,
             in boolCondition )
```

#### 5.27.1.12 updateUI()

```
function updateUI (
             in handles,
             in out )
```

#### 5.27.1.13 updateUIActiveCammand()

```
function updateUIActiveCammand (
             in handles )
```

#### 5.27.1.14 updateUIButton()

```
function updateUIButton (
             in handles )
```

#### 5.27.1.15 updateUIEscape()

```
function updateUIEscape (
             in elementToSet,
             in boolState )
```

#### 5.27.1.16 updateUIPlayer()

```
function updateUIPlayer (
             in handles,
             in strPlayer,
             in position )
```

#### 5.27.1.17 updateUIWalls()

```
function updateUIWalls (
             in wallsUI,
             in vertWalls,
             in horizWalls )
```

#### 5.27.1.18 updateUIWallsAround()

```
function updateUIWallsAround (
             in handles,
             in strElement,
             in wallsAround )
```

## 5.28 ModelLaby.m File Reference

### Classes

- class ModelLaby

  *Class which contains the "fmg" structure of the labyrinth for 1 player*

## 5.29 ModelPacman.m File Reference

### Classes

- class ModelPacman

## 5.30 ModelSED.m File Reference

### Classes

- class ModelSED

## 5.31 ModelWalls.m File Reference

### Classes

- class ModelWalls

## 5.32 setColor.m File Reference

### Functions

- function setColor (in img, in imgRef, in colors, in indice)

### 5.32.1 Function Documentation

#### 5.32.1.1 setColor()

```
function setColor (
              in img,
              in imgRef,
              in colors,
              in indice )
```

## 5.33 Simulation.m File Reference

## 5.34 StopCondition.m File Reference

### Classes

- class StopCondition

## 5.35 testUI.m File Reference

## 5.36 THEplan.m File Reference

## 5.37 visupacman.m File Reference

## 5.38 visupacman2.m File Reference

## 5.39 wallsBorder.m File Reference

### Functions

- function wallsBorder (in walls)

### 5.39.1 Function Documentation

#### 5.39.1.1 wallsBorder()

```
function wallsBorder (
             in walls )
```

## 5.40 Wrapper.m File Reference

### Classes

- class Wrapper

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