Developper’s manual

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Packages

fr.umlv.board : It contains one class which is the Board class. This package manages all the actions we can do on the board (add a new element into the board, verify the position of an element in the board…).

fr.umlv.bloc : This package manages possible actions that can be done on an element contained in the board, such as translate the position, it can manages the direction of a translation…
Those classes purposes will only be contain information about an bloc in the board.

fr.umlv.file : This package is necessary for file loading. The classes of this package can create a level based on the loaded file.

fr.umlv.rules : This package manages the rules that are applied on the board (such as moving the elements containing the You property, applying the Sink property …), It also manage the active property on the board (name class : PropertyUpdater).

fr.umlv.options : This package manages the inputted options in the program run command.

fr.umlv.element : This package manages the contant variables about an element such as the path to the corresponding image of the one element, or its name …

fr.umlv.property: This package manages the contant variables about an property bloc such as the path to the corresponding image of the one property bloc, or its name …

fr.umlv.operator : This package manages the contant variables about an operator bloc such as the path to the corresponding image of the one operator bloc, or its name …

fr.umlv.name : This package manages the contant variables about an name bloc such as the path to the corresponding image of the one name bloc, or its name ...

fr.umlv.main : This package manage the main class that will run the program.

Difficulties

The main difficulties we encountered during this project was :

- Maintaining a stable project. Indeed, we have to change the structure of the project multiple times, because in some cases the classes were not clear, some classes were useless …
- Lack of time : Because we spend to much time into restructuring the project, we lost precious time to complete the project (some options are not implemented or not fully implemented such as the –level option)

Changes since the oral defense

We made some changes since the last oral defense :

- The constructor of all enum have been changed to simplify the code (asked by the teacher)

- Modification in the Board class :
  - We changed the representation of the board from a static 2 dimensions board (using new Bloc[][]) into a Hashmap of position containing an ArrayList of Bloc. (This method avoid having empty bloc).
- Creation of the rules package :
  - we created a new package with the Rules and PropertyUpdater classes. Applying a rule and updating active property was originally managed by the Board class, which was not semantically correct.
- Creation of the options and file packages

Bugs

- Lack of optimization :
  - In the Rules package, optimization can be done while verifying the rules and properties present in the board.
- Lack of error management :
  - In all the ry/catch clauses, there is no real error managment concerning the Exceptions.
- Lack of implementation :
  - Some implementations are not available :
    - the « --execute » option
    - the « --level » and « --levels » options can be executed one at the time and once.
- Creation of the javadoc :
  - Some warnings and errors appear during the creation of the javadoc (certain methods do not have a documentation)

Main Implementation

- The Bloc interface is implemented by the AbstractBloc abstract class.
- The AbstractBloc class is implemented by the Element, Property, Operator and Name class.