# Turtle Application Specifications

## The game

The game is composed of one board, one exit, one turtle and many mines. With this specification:

* The board could any table of size where both .
* The exit is any point where and

.

* The turtle is any point where and

and have a direction where

.

* The mines are a list of any different points where and and where are the exit point.
* There is just two action possible Rotate or Move.
* The game finish when the turtle is over a mine (Lost) or over the exit (Win).

## Setting File

The setting file is a .json (in a future will also .xml supported) with the following structure:

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Restriction | Values examples |
| Size | Point | Board restriction | “3,5” |
| Exit | Point | Exit restriction, by default “0,0”. | “0,3” |
| Mines | Array of Point | Mines restriction and cannot be TurtlePosition. | ["2, 2", "3, 3"] |
| TurtlePosition | Point | Turtle position restriction, by default “0,0”. | “0,1” |
| TurtleDirection | text | Turtle direction is where and “” are uppercase of each, by default “N”. | “E” |

## Action File

The action file is a .json or .txt (in a future will also .xml supported) with a simple array of texts where and “” are uppercase of each.

For example [“M”,”R”,”M”,”M”].

## Parameters

|  |  |  |
| --- | --- | --- |
| Parameter | Restriction | Values examples |
| -s PATH | The root of the setting file to use. | -s C:\TurtleSample\setting.json |
| -a PATH | The root of the actions file to use. | -a C:\TurtleSample\actions.json |
| -h | To show the help. |  |