MARS PROJECT

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Introduction

The Mars project has been interesting for its parsing part and positions calculation on a 2D map.

The name of the solution is MarsApp.

The app runs on Windows.

A compiled version (.exe extension) with a dataset has been included into 'binary' folder. You will find the folder in MarsApp/binary.

To run the app, use a CLI with the following CL: MarsApp.exe Direction.txt

GitHub link: https://github.com/Valgoku01/MarsApp

Technical details

The project has been developed using .Net Framework 4.6 and Visual Studio 2017.

The language is C#.

Link to download .Net Framework 4.6:

https://support.microsoft.com/en-us/help/3045560/microsoft-net-framework-4-6-web-installer-for-windows

Link to download Visual Studio 2017:

https://visualstudio.microsoft.com/downloads/

Due to potential graphical improvement, the architecture Model/ViewModel has been set.

Comments

Based on the specs, the following assumptions have been made:

- The rover can not receive wrong letters as positions or movements or direction
- The positions can't be negative
- The x and y of the map cannot be negative
- The directions must be : N S E O M L R
- All rovers positions, new positions and total of moves cannot exceed the equivalent of the type 'long' in C#
- The specs are asking for (x, y + 1) axes, but in the example, the new positions of rover would not match with displayed output if the engine uses these axes.
- The axes have been set to (x, y). x and y are constant shared by the entire app. Can be modified easily by changing two constants in the project.

Some improvements can be done in the code:

- Create a parser utilities
- Make stress tests

For the tests, the class ‘Mock’ could also be used.