User guide

What is Imagine logo

Imagine logo is an entertainment program for creating 2D drawings by giving commands to a turtle.

Getting started

To start using the program go to the `gui.py` file and run the code.

Controlling turtle

To <u>move</u> the turtle use command `move [units]`. By default turtle faces north and there it will go. To <u>turn</u> the turtle clockwise use command `turn [angle]`. The turtle will now move in the direction you specified. By default, the turtle leaves a trail when it moves, to change this, <u>pick up</u> the turtle using command `up`. To <u>put it down</u> use command `down`.

Menu

1. **File menu**

   1.1 New

   Returns everything to its original position. **Attention!** Make sure all changes are saved before creating a new file.

   2.2 Open

   Opens a text file with commands and executes them. **Attention!** All undefined commands will be skipped.

   2.3 Save image

   Opens a window for choosing a direction to save the image obtained while moving the turtle.

   2.4 Save txt

   Opens a window for choosing a direction to save commands in `.txt` format obtained while moving the turtle.

   2.5 Exit

   Closes the application. **Attention!** Make sure all changes are saved before closing the application.

2. **Help**

   2.1 User guide

   Shows user guide.

   2.2 For developers

   Shows technical documentation.

Technical documentation

`gui`

The main program file. Initialization of the `MainWindow` class creates a `UI` class (from ui.py module) object responsible for the main program interface, creates turtle image and calls `createMenu` and `initialValues` methods. Calls `main` method when the command is entered.

`createMenu` method creates a `Menu` class object responsible for creating and managing top program menu.

`initialValues` method sets the initial values of the variables when the program starts.

`main` method creates a `InputProcessing` class (from InputProcessing.py) object responsible for processing the input.

`inputProcessing`

Module responsible for processing the input. If the input is correct, depending on it, creates an object of `Move` or `Turn` class (from logomocja_choice.py). Shows an error if the input is incorrect.

`choice`

`Turn` class:

Initialized when the `turn` command is given. Rotates the image, sets the anchor.

`Move` class:

Initialized when the `move` command is given. Sets new coordinates of the image, moves it and draws a line if the turtle is down. Creates a `CrossedBorder` class (from `bordersCrossing.py`) object if canvas border is crossed while moving the image.