User Manual

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Tangram

A student project about the Tangram game made in C++

Getting started

When you're in the root directory of this project, follow the next steps :

CMake

First, If you have not did it already, you can build the game by executing the following command line :

```
>$ cmake ./cmake-build-debug
```

Make

Second, If you have not did it already, you can make the executable's game by executing the following command line :

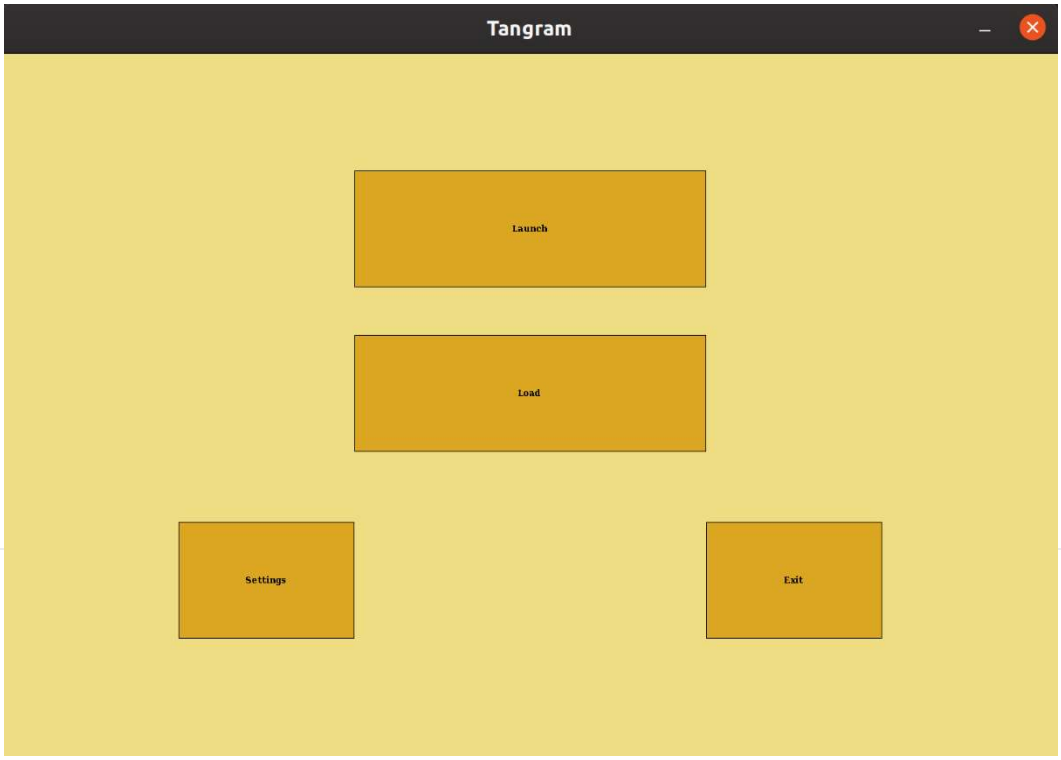
```
>$ cd cmake-build-debug
>$ make
```

Run

Before using the run command line, you have to use the two aforementionned command in the right order. If you have already did it, you can run the game by executing the following command line :

```
>$ ./tangram
```

A window like below will appear, this is the main menu :



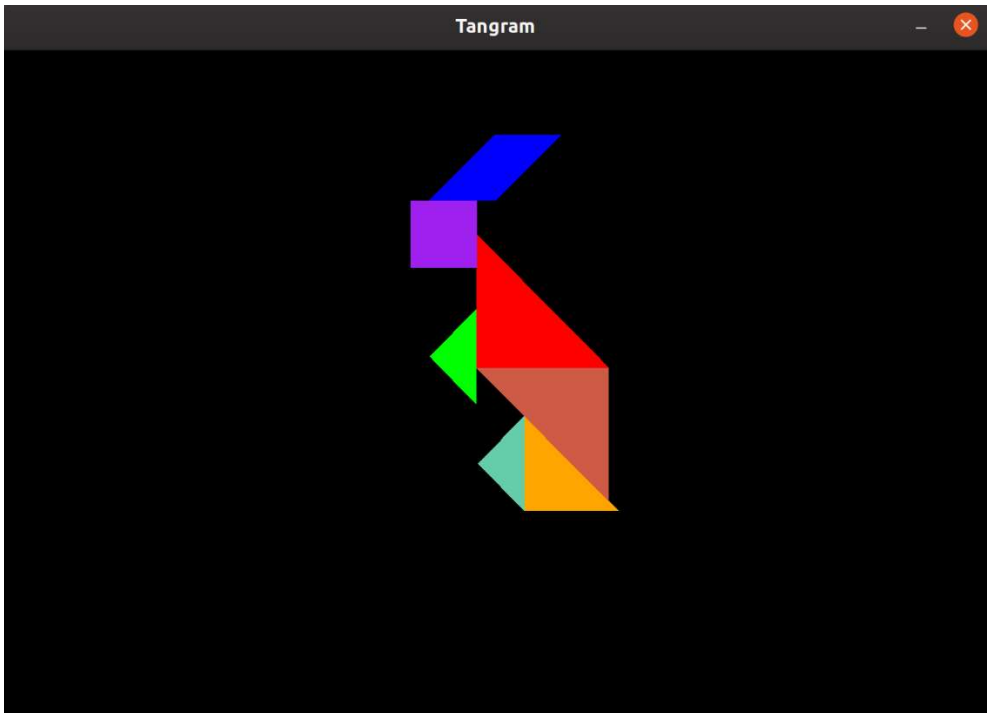
How to play

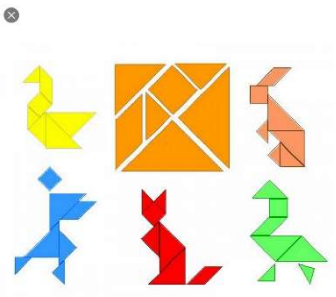
Run the game with the following command line in the cmake-debug-build directory :
`>$ ./tangram`
You can play now.

Launch Button

You can create a new puzzle board if you click on the `Launch` button and use the following commands :
`mouse click left` on a shape and drag to move it.
`mouse click right` on a shape and drag to rotate it.
`press 'Esc'` to exit this mode.
`press 's'` to save the current board as puzzle.
`press 'd'` on a shape mouseovered to rotate it 45° anti clockwise.
`press 'f` on a shape mouseovered to rotate it 45° clockwise.
`press 'r'` to symmetrically reverse the shape
Note that last command rotates every shape to 180° except parallelogram which is overturned (in a mirror fashion)

Here I created a new puzzle rabbit with a model found on the internet :





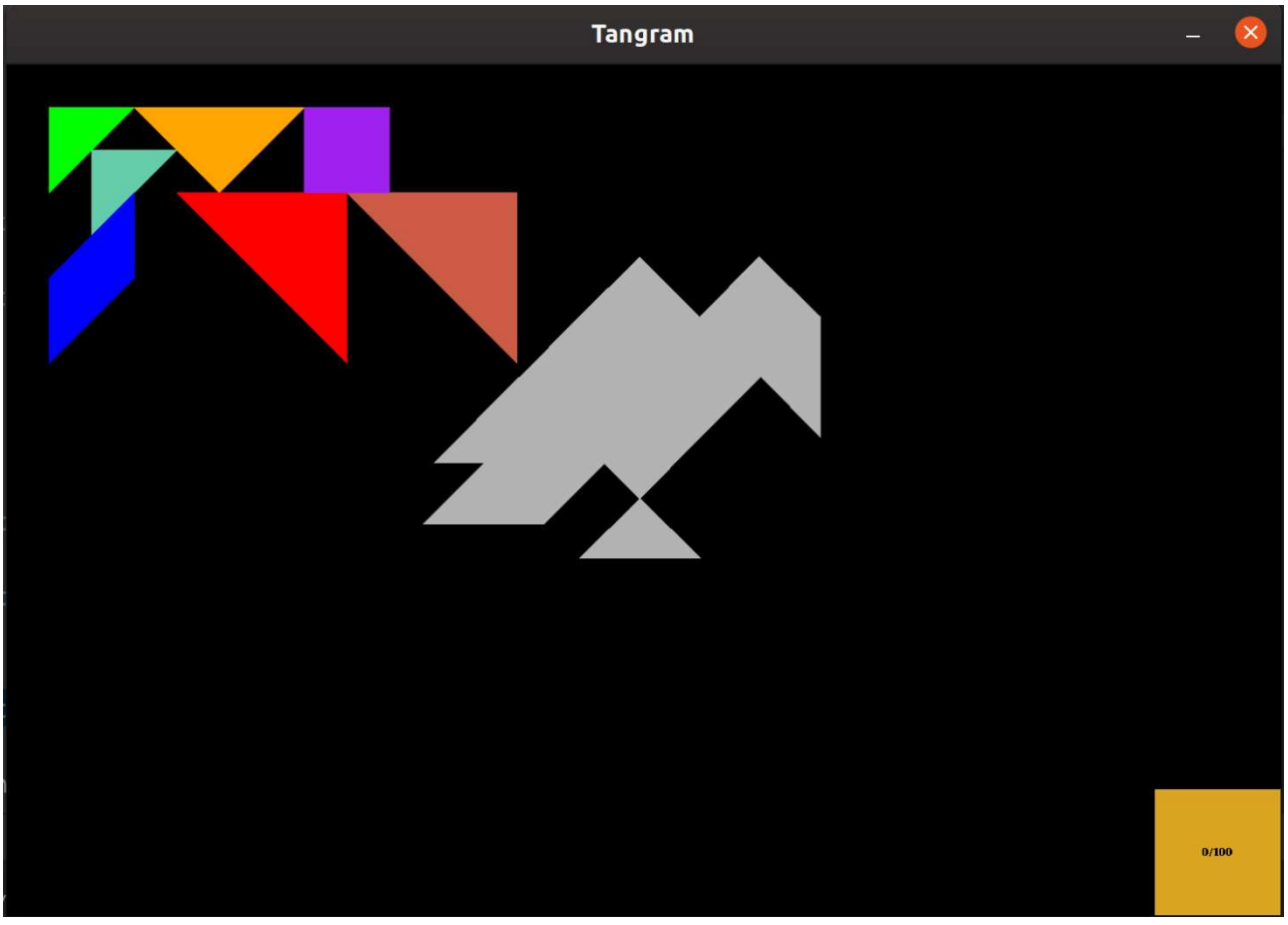
Load Button

If you click on `Load` you can load a puzzle file and try to resolve it. You can use the following commands :

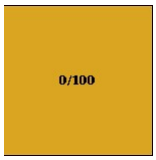
`mouse click left` on a shape and drag to move it.
`mouse click right` on a shape and drag to rotate it.
`press 'Esc'` to exit this mode.
`press 'd'` on a shape mouseovered to rotate it 45° anti clockwise.
`press 'f` on a shape mouseovered to rotate it 45° clockwise.
`press 'r'` to symmetrically reverse the shape
Note that last command rotates every shape to 180° except parallelogram which is overturned (in a mirror fashion)

Here is an example of the navigation between pages :

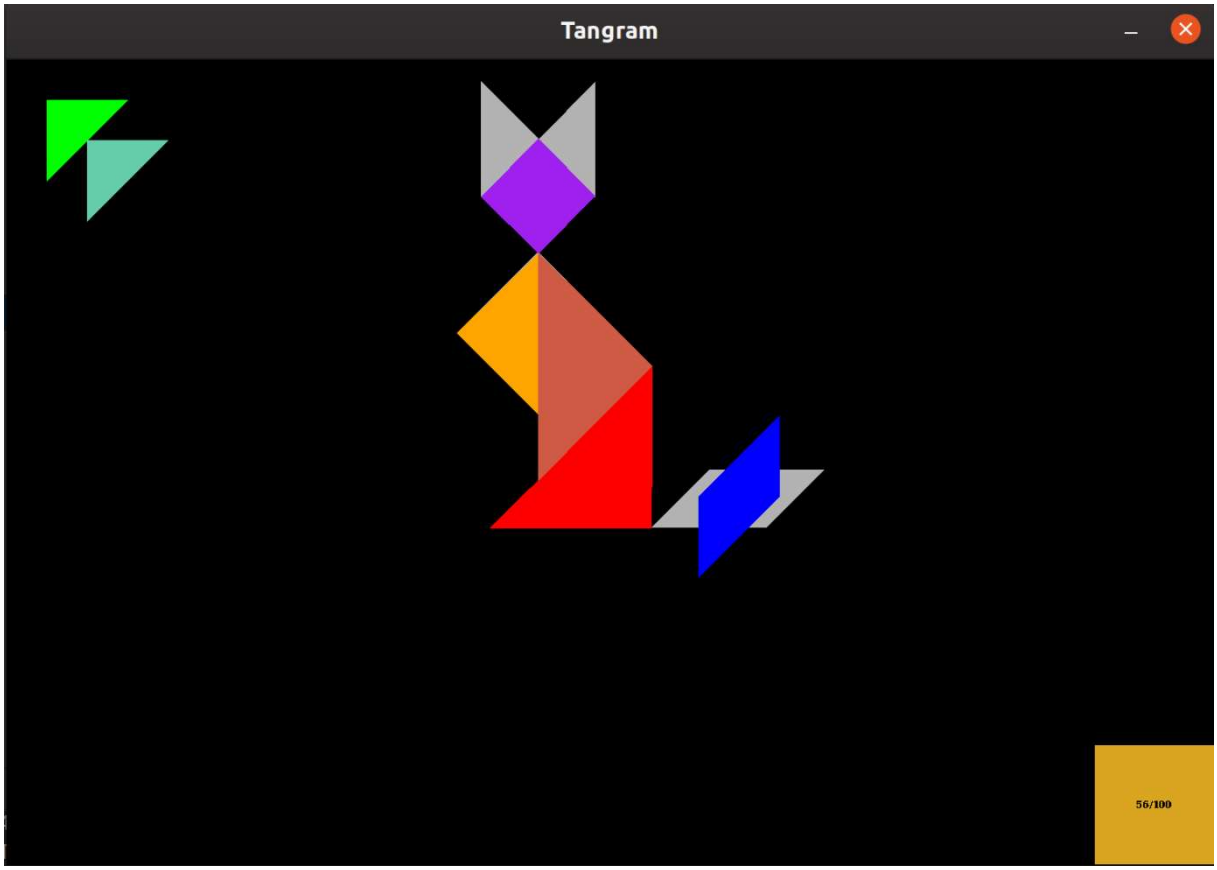
And here an example of a loaded puzzle (bird.txt) :



This display at the right-bottom is the current progression of the puzzle :



This screenshot displays an example :

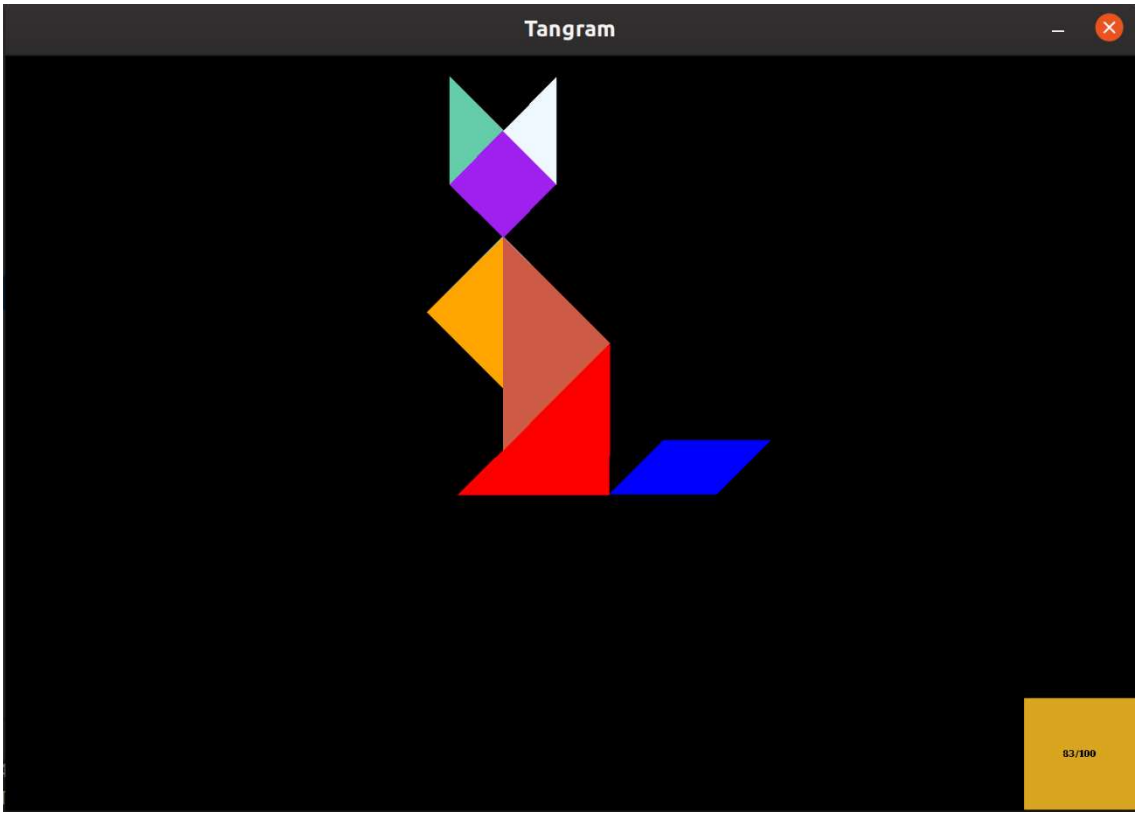


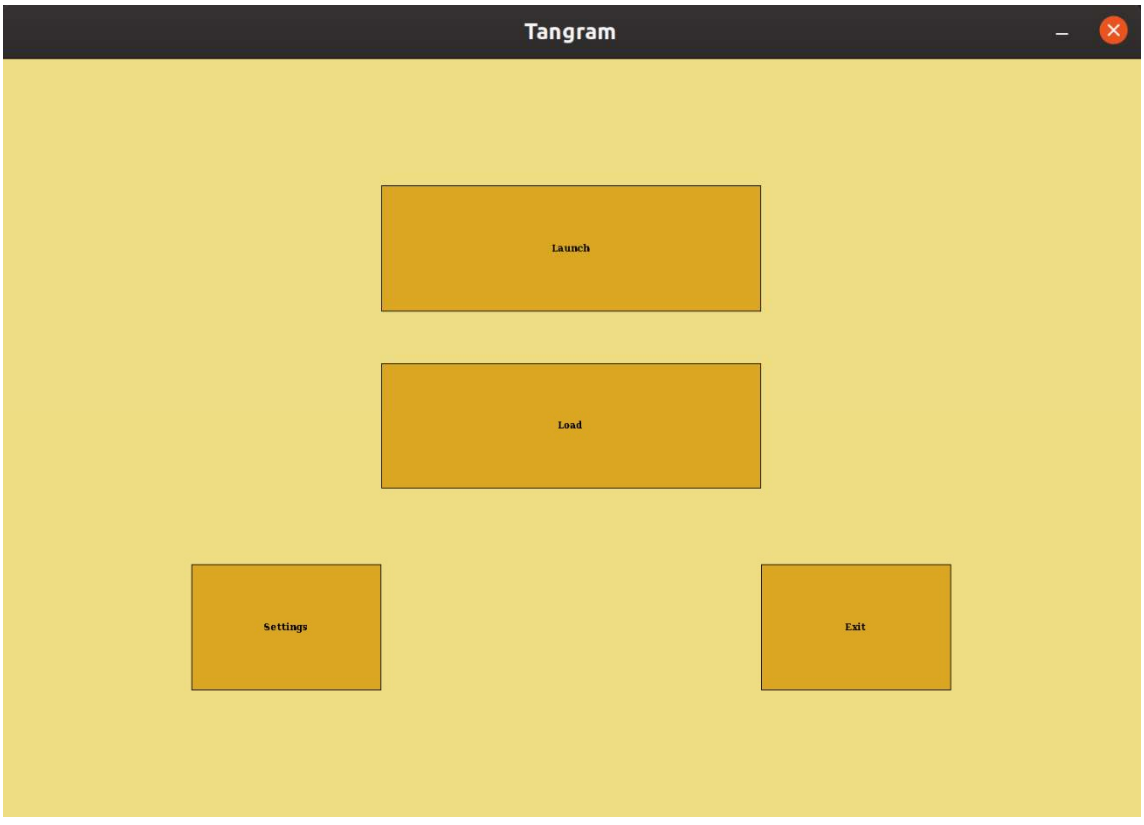
Around 56% of the puzzle board is already completed.

End Game

The game will stop when you put the last shape at the right place. You will return to the main menu.

When you solve a puzzle, the last shape dropped will be displayed in white and the game will freeze a for few seconds before you return to the main menu.





Documentation

Here you can find HTML files, LaTeX files and PDF.

HTML

Open with your browser
```
>$ cd doc/html
>$ index.html
```

LaTeX

```
>$ cd doc/latex
```

PDF

Open it with a PDF reader
```
>$ cd doc/latex
refman.pdf
```

Generate Documentation

You can generate this document as needed.
If you're updating the code and the documentation, you should do execute in the root directory of this project :

```
>$ doxygen config-file
```

If you want customize the documentation generated, you could also configurate the following file :

```
>$ gedit config-file
```

Generate PDF Documentation

To generate the PDF documentation, execute the following commands :

```
>$ cd doc/latex
>$ make
refman.pdf
```