"Fractal viewer"

Semester assignment

Ramina Khusnutdinova

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CTU FNSPI
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Chapter 1

Introduction

As my semester assignment for the POGR2 subject I chose to create a Fractal viewer. This program is made for creating various forms of fractals (Mandelbrot and Julian). This application is made in C++ language, using the "Qt' program and its own graphical environment.

Chapter 2

Source code

As was mentioned in the previous Chapter, the viewer is made in C++ language in "Qt". For the graphical representation "Qt' own form was used. The program is divided into three classes.

1. *Fractals* class is responsible for the fractals themselves. This class consists of the formulas for their creation.

2. *FractalViewer* class is the one creating the window for the fractals appearance. The are all the buttons, icons, and new windows, which are used in this program.

3. *Preferences* is the class, which allows to manipulate fractals, change the x, y and e values.

All the windows were translated into Czech language by the "Qt linguist". The program itself should run in all the systems.
Fractal viewer is very user friendly, it remembers the choices made during previous session, represents the percentage of the work done during the creation of the fractal, and allows to create fractals both black and white and colourful.
Icons used in this program were downloaded from the open source website *http://www.iconarchive.com/*.

Chapter 3

Conclusion

This program is a good environment for the graphical representations of the fractals. It is easy to use, contains all the necessary information and buttons, which may came useful. However, this program still can be modified and changed a little.

For me that was a great challenge, especially the graphical part of the job. Even though the program is not perfect, I may consider it as the hardest program from all I have made. Even not being excellent, it is highly functional, handy and successful.