Assignment0 Description

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We are totally new with Haskell, so our code is not one of the best. When we tested the code with –Wall we found a repetitive warning that we were not able to fix it. As we understand the Warning, the variables that were used are Double and they need to be Integers, but then we won't be able to send a Double back from the functions.

The first part of the code is defining the "Point" and "Curve". The first 4 functions are creating the smaller pieces for the Hilbert curves. First function creates a point, out of 2 values x and y, the second function compares 2 points. The third function is creating a curve out of a list of points and the next function connects 2 curves, where the second curve is added on the first curve forming a larger curve.

The rotate function rotates the Curve, but the rotatePoint function defines how the points are to be rotated based on the formula found here. The translate function translates the position of a curve on a plane using a point to determine the direction of the translation.

The code output is not the same as the one shown in the assignment, we could not find the problem. It seems that the rotate or translate function have something missing.

The Axis variable is containing "Vertical" and "Horizontal" and was used to reflect the curve on the specific x/y axis. The Bbox takes the minimum value and the maximum value and creates the frame for the curve, based on the 2 mentioned points. "toList" function converts a curve into a list of points and "toFile" function writes the curve in a file.

We used the function map to apply constraints and create a new list of items.

Conclusion

The Hilbert function creates a drawing, but a different one from the drawing presented in the assignment.