

Programming a Bot with C# by Eric Léger

In my extended essay I program a Bot, which is a computer program, used to go through repetitive tasks by itself. In my case, the Bot is able to play the online game TibiaME (Tibia Mobile Edition) on its own.

My goal was not to create an application that interacts with mouse- and keyboard commands, but closer to the machine, on byte level (through the TC/IP to be exact). The challenge with that, is that I had to learn a lot about how networks and the communication between computers works. It's very fascinating to see how computers work and how they transform these ones and zeros into High Definition graphics.

The program itself starts a server and a client in order to intercept the message stream between the local game and the game server. By forwarding packets back and forth, I can add, remove or change messages however I want. In addition I try to collect information about the game and store it in databases in order to come to a clearer understanding of "Big Data".

If you want to learn the basics of how computers work together, you should definitely take a look at my project. I have explored virtually every layer of the computer, going from the GUI (Global User Interface), through the syntax of programming languages (I make usage of C#) down to the bits and bytes, which I have to analyse to understand how server/client messages are structured.