

## Abstract

### Title: **Multi-platform Multiplayer RPG Game**

A multi-platform game, which would be able to run on various devices with Windows 8.1 and Windows Phone 8.1 systems, was created in this work. It was supposed to be a universal game client executable on desktop PCs, notebooks, tablets or mobile phones. The game was supposed to be role-playing game (RPG) with focus on turn-based action combat. In this work, a 3D scene renderer was written which supports rendering simple scenes with objects and animated characters. A cross-device communication library based on bluetooth technology was implemented in this project as well. This communication library allows two game clients running on two different types of devices to communicate with each other. Then a server-client communication library was created. This library was then used to implement a game server which offers online gaming feature.