

In the “Ochotnický soubor Lípa” theater, it is necessary to control custom-made lighting communicating via UDP datagrams. The goal of this theses is to create a system in which it will be possible to control these lights through a computer application.

The ObjectsForLights library, created within the system, is portable and serves as a logical basis for user applications. The library contains client and server modules. The system is built centrally, where the server is a common point for communication with both clients and devices. The server and client modules take care of maintaining data for devices, communication with each other. The server is also responsible for direct communication with controlled lights themselves.

Computer applications were created on top of the client and server modules, and enable user control of individual devices. Applications provide graphical controls for individual devices corresponding to the type of controlled device, provide ability to assign names to individual devices and create groups of controlled devices. Data for the device can then be saved and retrieved from files.