**1.Description**

The driver of peripheral device shall connect to the PC ( peripheral device as dongle) and to one device which that control the experimental installation. Also it shall be able to support 16(MAX) device connections. The driver shall be written in C and it shall support two standards: Bluetooth 4.0 and Serial Protocol.

**1.1. Components**

* The BLE constructor is used to abstract away BLW-capable radio transceiver, also it is used to work with any radio transparently(older Bluetooth profile);
* The pc constructor is used to send or receive to/from dongle.
* variables are used :
  + for buffers;
  + for UUID of clients;
  + name of clients;
  + checking states;
  + data payload;
* functions are used :
  + for receiving/ transmitting data
  + to identify clients,
  + for decoding local commands
  + for scanning clients,
  + for data parsing;
  + reading parameters of clients;

**1.2.Flow chart**



**2.Use-cases**

**US1:** Dongle is used to transfer data from experimental installation to PC.

**US2:** Dongle is used to transfer data from PC to experimental installation.

**US3:** Dongle receive and event from client that’s disconnected.

**US4:** Dongle receive a request to send a command to other client that one is connected in that moment.

**2.Buffers**

Buffers are used for radio message transmission. Driver should contains more buffer for:

* rx-data;
* rx/tx payload;
* clients (uuid, name and other details);