# Sequence diagram



1. The contain two main parts:
   1. Parental Control Server
   2. Parental Control Agent

**Parental Control Server**

Parental control Server is responsible to establish a named pipe and listening for new users that just logged in. On every login the Parental Control Service will create a new thread called “Agent Handler” that will monitor the time consumption of the new connected user.

**Parental Control Agent**

On every loggin a parental control agent process start automatically and create a connection with Parental Control Server. The Parental Control Server monitor the time consumption of the client and when it’s over a “logout” message is sent. Upon “logout” message arrival the Agent generate an 30 second alert to end user in order to save files and then the Agent close the current windows session.

The technical challenges encountered in this project were as follow:

* Create a reliable communication channel between server and agent
* Create a windows service that start automaticaly on startup
* Create a agent process that start automaticaly for every user logged in
* Create a new monitoring agent thread for every connection

# Testing

The testing procedure includes the following aspects:

* Sanity check i.e. checking basic functionality of the program
* Platform check i.e. checking the functionality of the program on various windows operating systems (windows 7,8 and 10)
* Check on isolated user
* Check on multiple users

During the following stages of testing various problem were found:

Sanity check:

* Wrong configuration of the named pipe
* Communication issues between client and server
* Failure to accumulate time

Platform check:

* failure on windows 8 due to missing runtime dll