

The Design Principles we chose, Explained:

We have planned greatly for the project and have had several agile meetings to discuss/plan the SDLC for our (**Behavioural**) program in a professional way. As it is a specification-following project, we decided to follow in the steps of Iterative and Incremental development for our design. We felt this is most appropriate as we are moving and learning Qt as we experiment more with it, as well as applying all the good design principles whilst taking caution of antipatterns.

https://en.wikipedia.org/wiki/Iterative_and_incremental_development

We avoided some antiPatterns such as the God Class in which we spread out the implementation from just mainwindow for example. As well as the big ball of mud antiPattern in which one class does everything in one go. Finally, we kept it simple, and also followed the "Worse is better" idea in which we keep the functionalities simple and not extra.

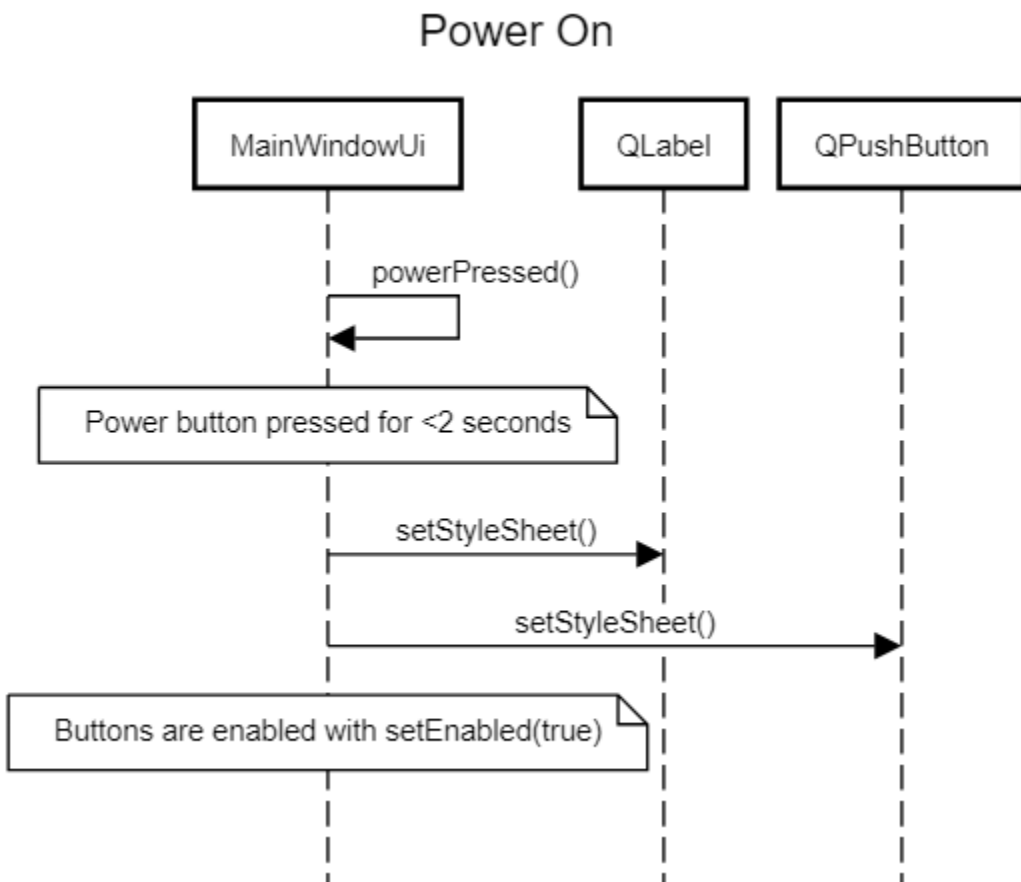
<http://wiki.c2.com/?BigBallOfMud>

<http://wiki.c2.com/?GodClass>

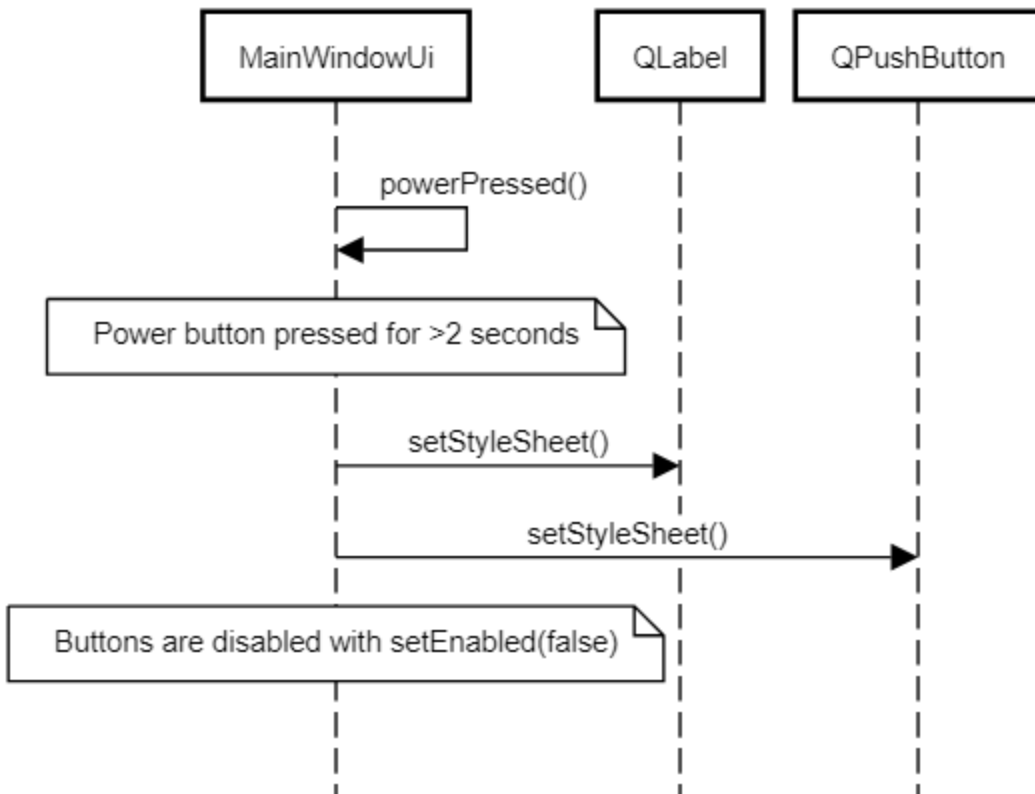
How we use mediator pattern in our program to follow the Behavioural pattern : A lot of our program could have been more directly linked but this allows for more mistakes, and tight coupling between a set of interacting objects should always be avoided. In this, we designed it as such that objects delegate their interaction to a mediator object instead of interacting directly, and this allows for loose coupling which is good.

Object Oriented Design Model Diagrams:

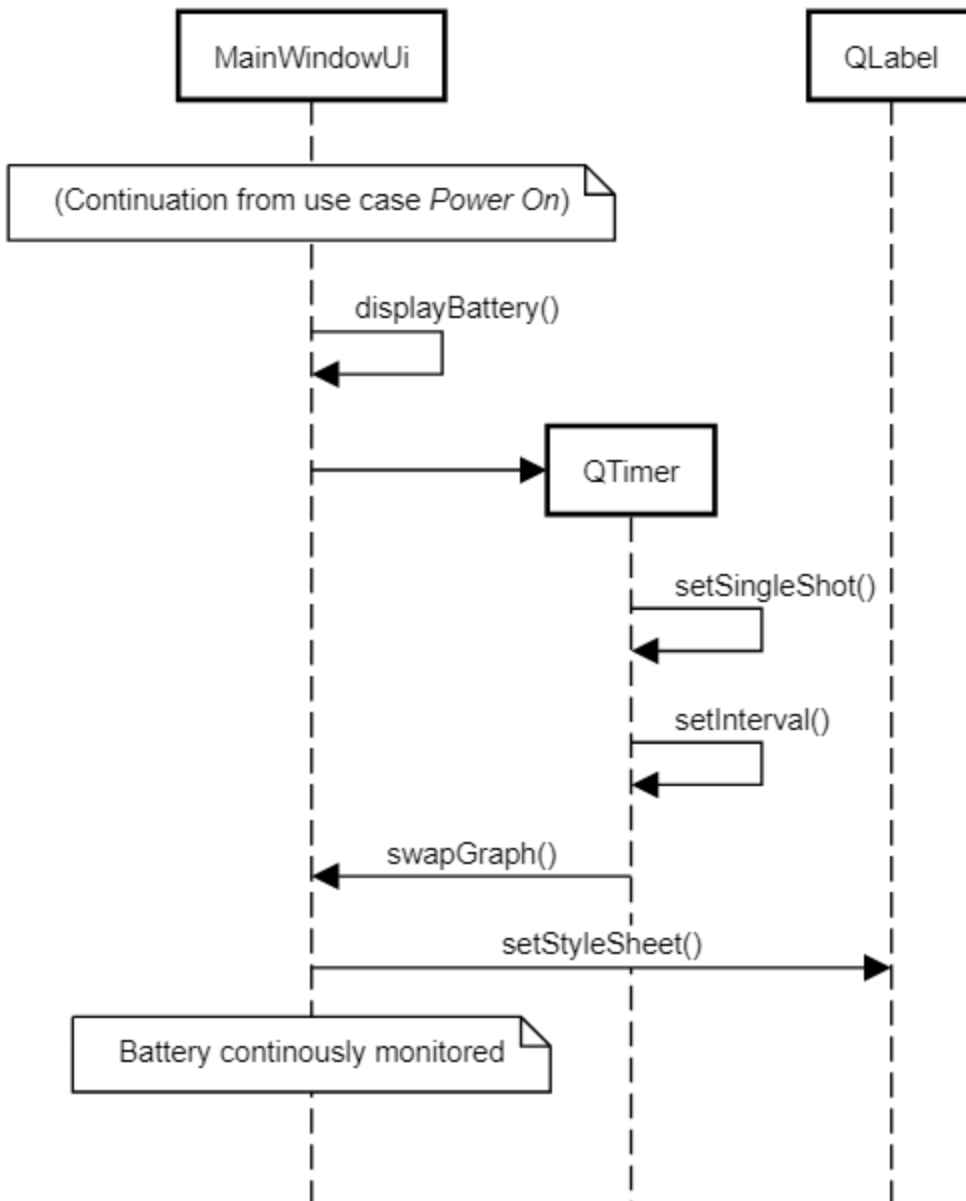
Sequence Diagrams:



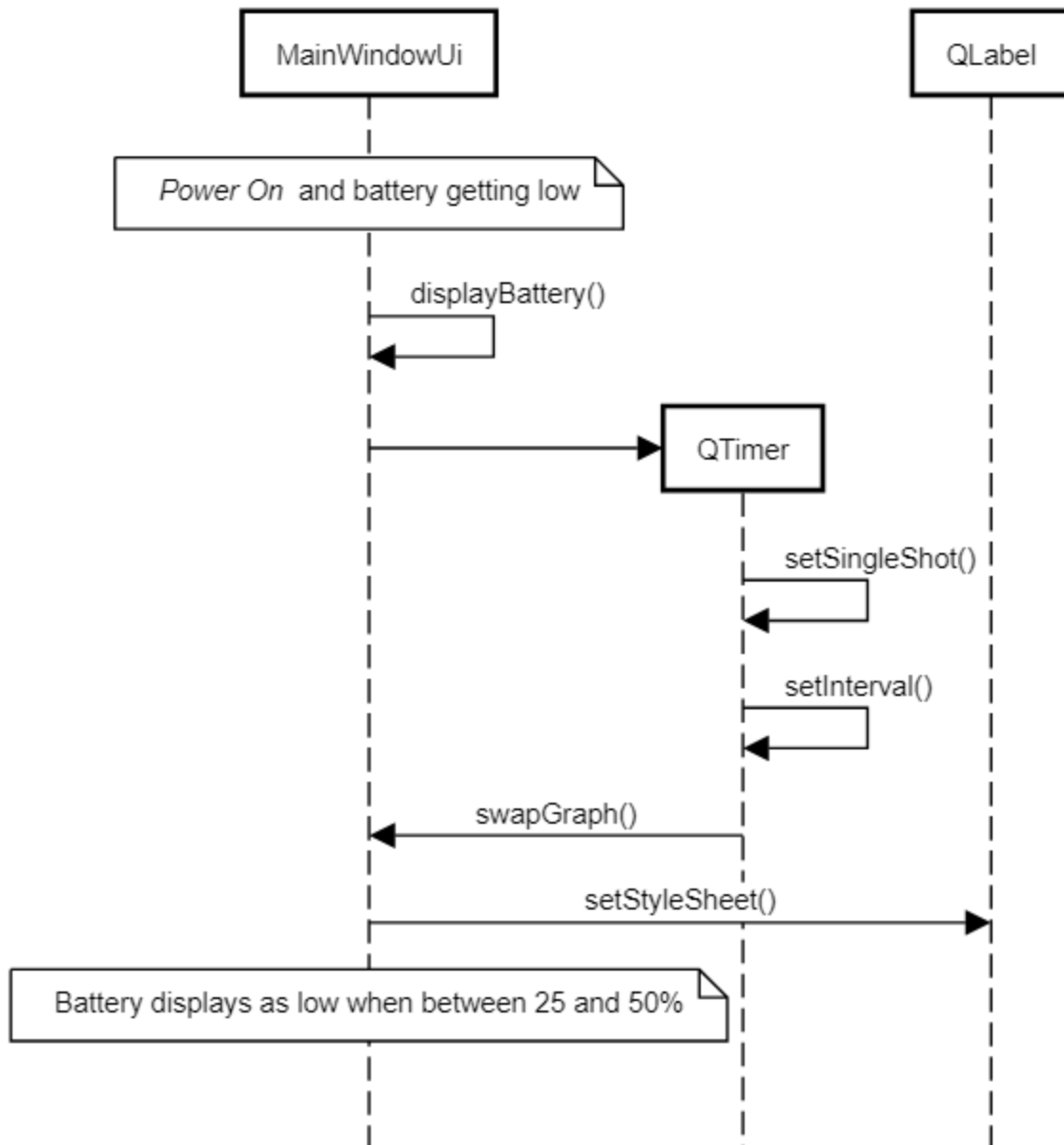
Power Off



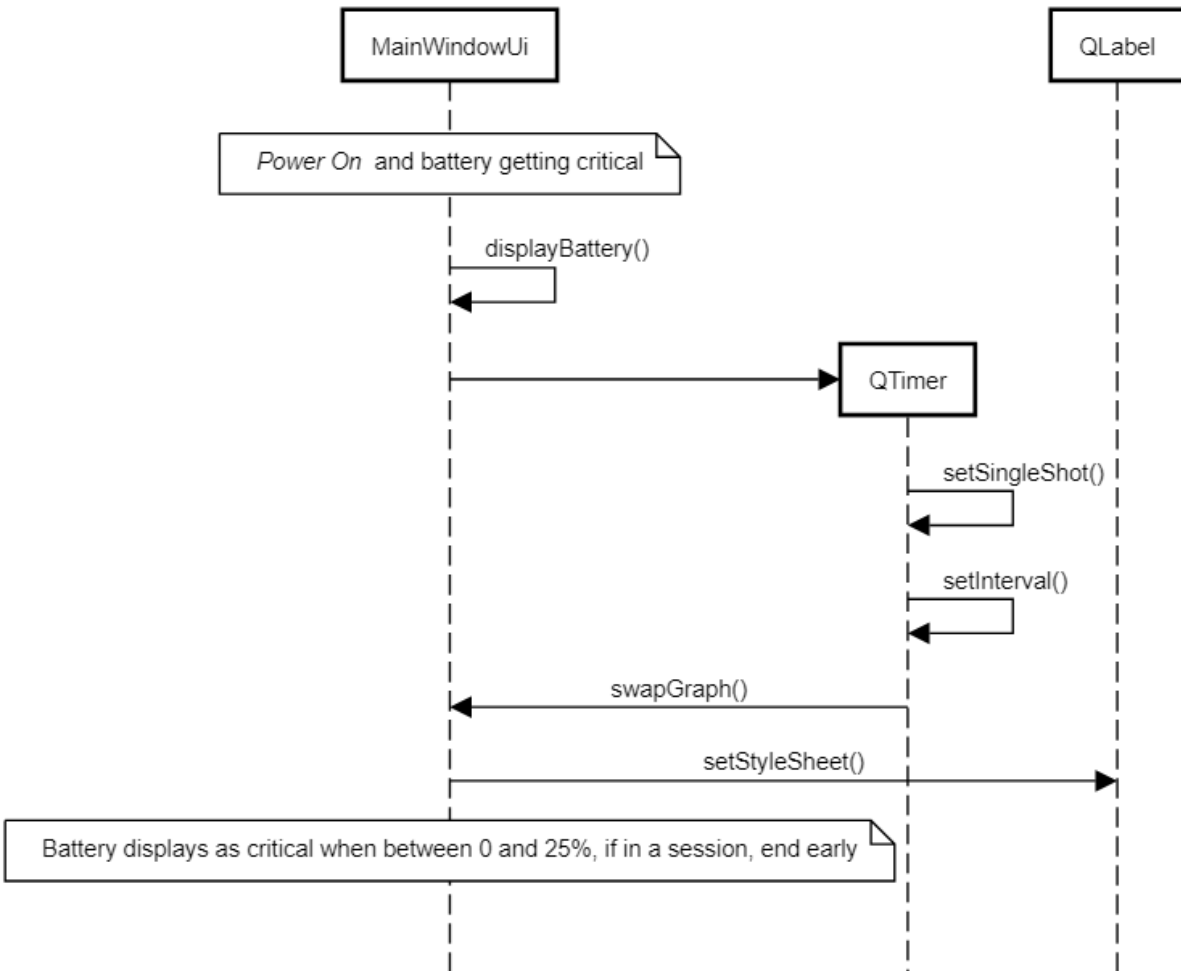
Battery Level Display



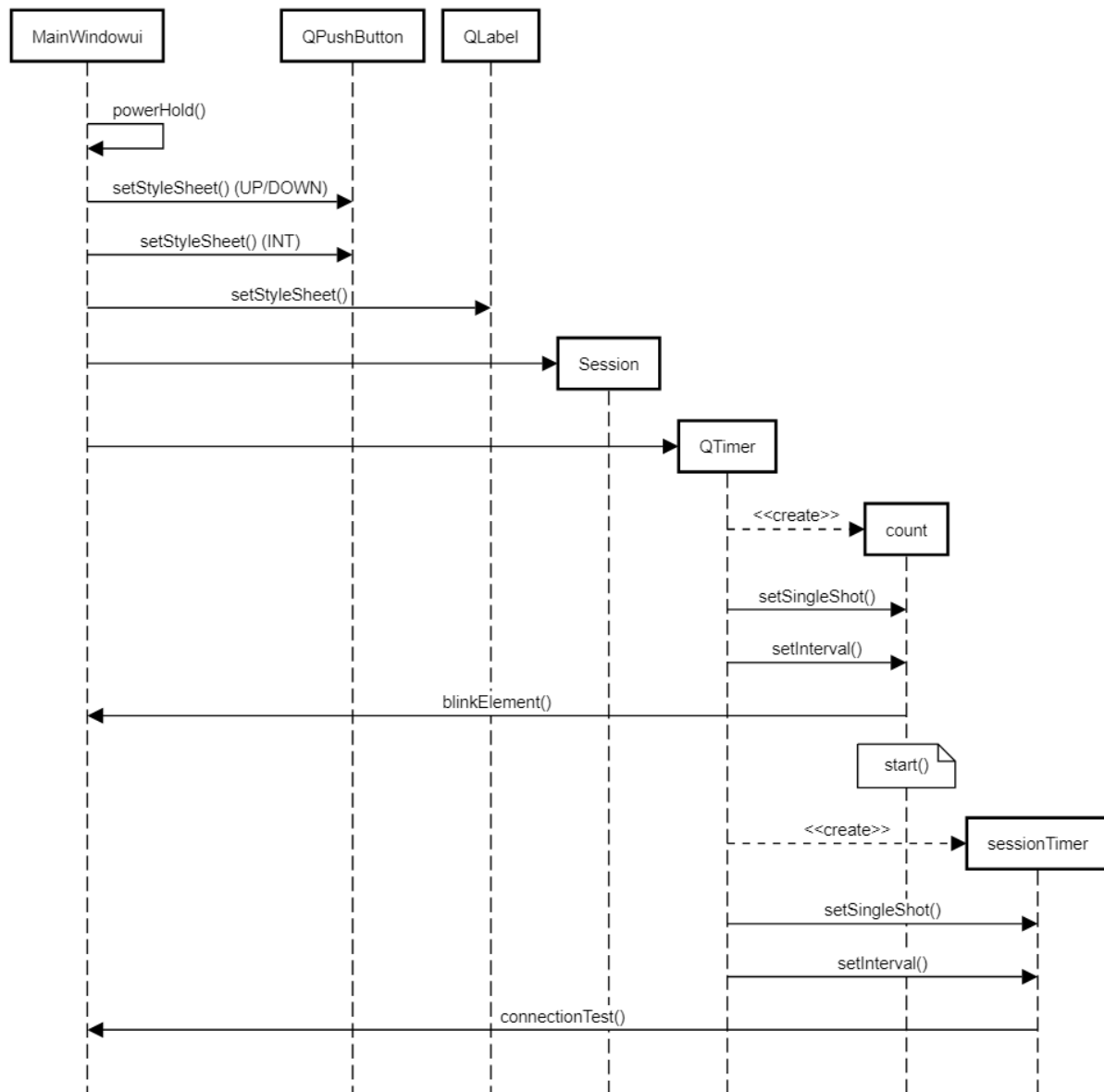
Battery Level Low



Battery Level Critical

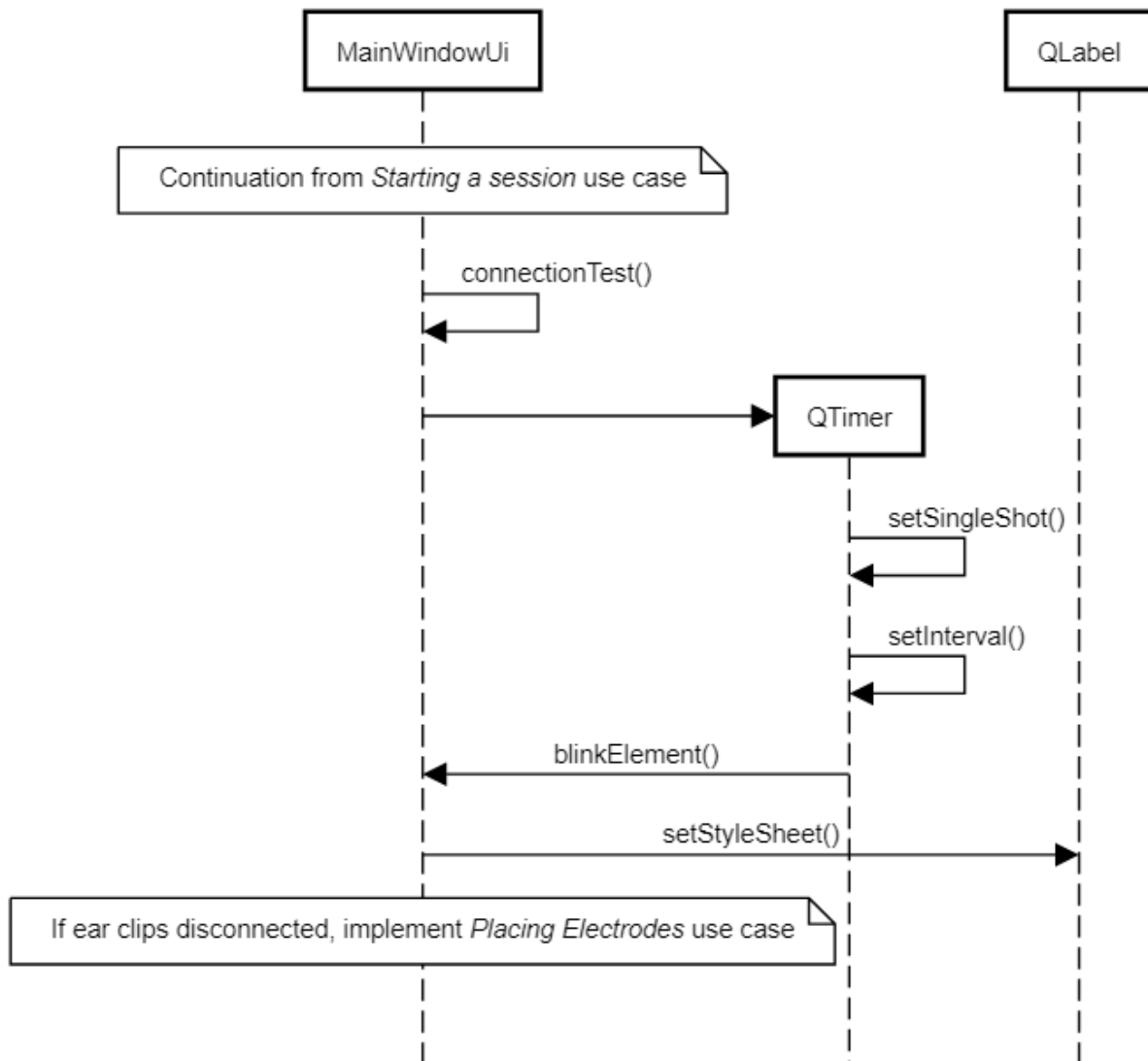


Starting/Ending a session Sequence

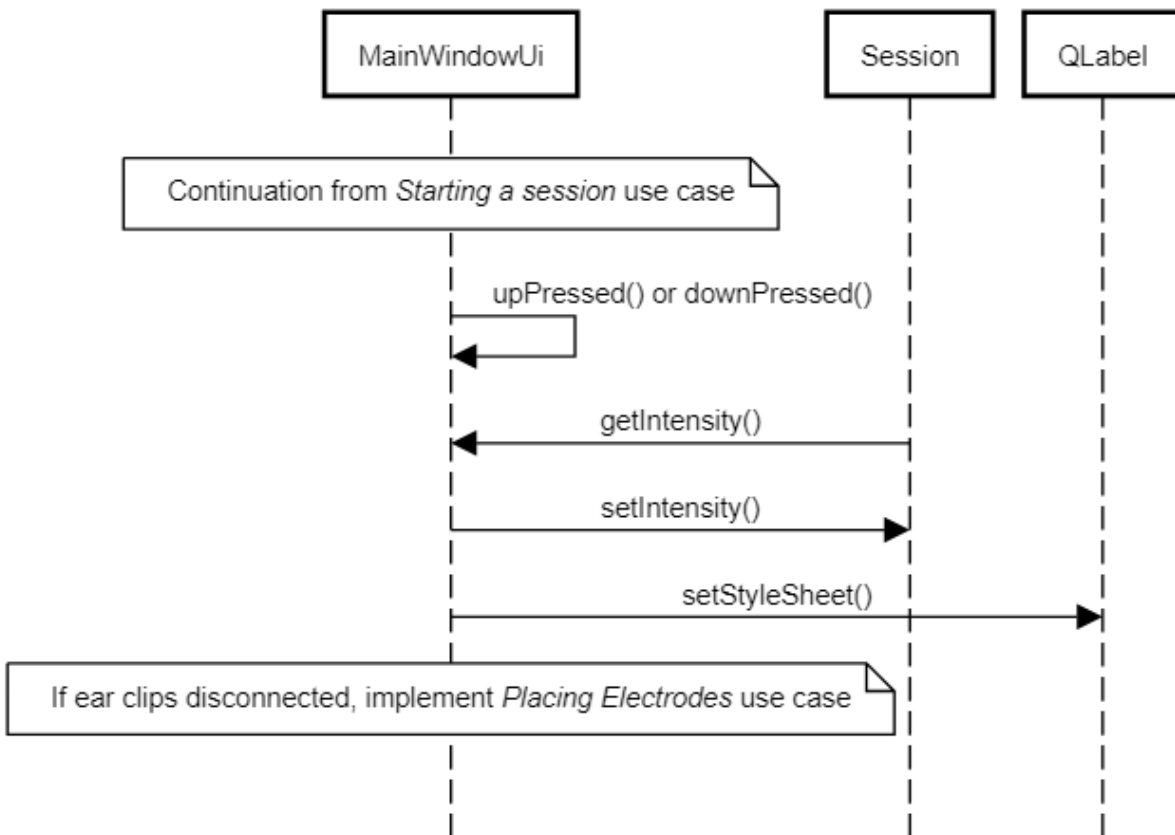


This diagram depicts the use case labelled Starting/Ending A session
 It follows the design in the code implemented precisely and assumes the ui is the control. Then a soft off animation is played and endsession() is called
 The final step is continued into the next sequence diagram, the Connection Test

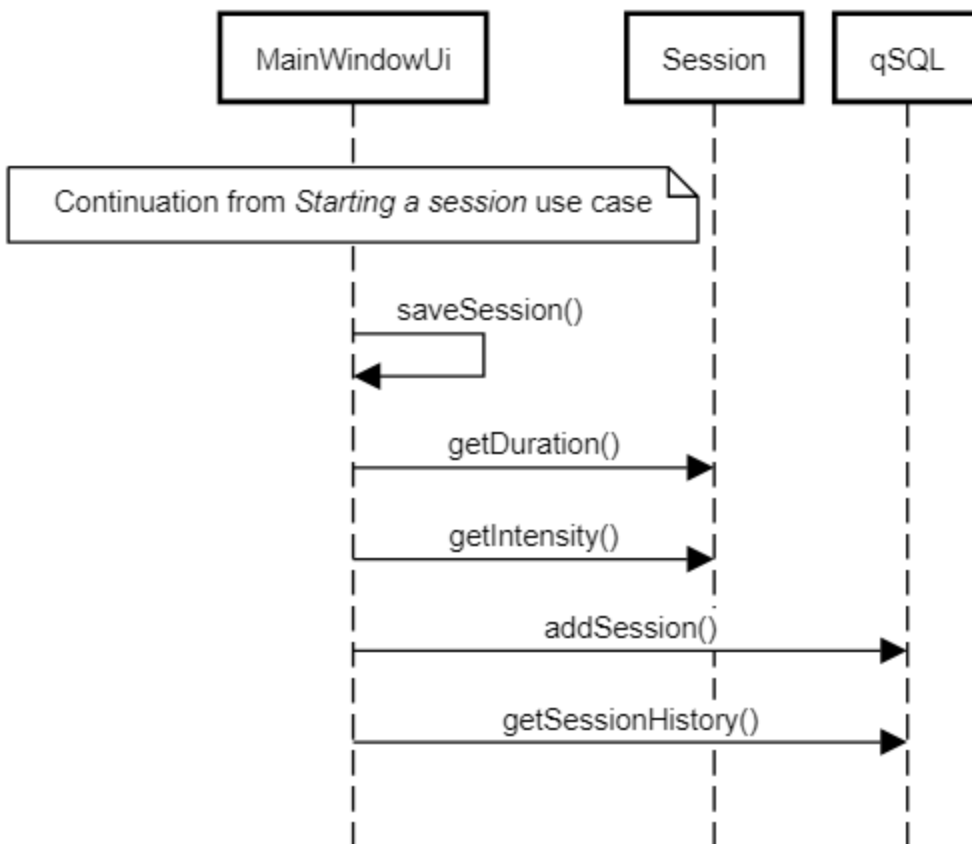
Connection Test



Adjusting Intensity



Recording Therapy Session



The activity diagram represents the flow of activities in a system while the sequence diagram represents the sequence of messages flowing from one object to another. I have chosen to show the flow of activities better with an activity diagram following <http://agilemodeling.com/artifacts/activityDiagram.htm>

Activity Diagram 1(Connection Test):

