

## Team Management

During the term we meet regularly(usually once/twice a week) which we carried we developed our product. However every 2 week we meet specially to review our progress and discuss any problems.As well as to assign work packages to each individual.We kept meeting minutes during these meetings:

31th of January 2014

This was our first meeting after submitting our COMP2013. Following were discussed:

- Dr.Bill Buxton's feedback on our prototype.
- Going over our term plan and putting more specified deadlines.
- Necati will be connecting the arduino pro to the bluetooth mate.
- Ed will do further research, how to capture sound using arduino pro.
- Dom further research into processing the captured sound

12th of February 2014

This meeting was the one of the problematic meeting we had.We were told by Graham McPhillips that if we wanted to capture sound using the arduino, we have to custom build our own amplifier. He told us that, this was 3rd year Electric and Electronig Engineering task and it will prove to be too difficult for us to do this and we might not finish on time.In this meeting we have discussed how to iterate on the idea.

- Decision made onto keep our prototype as wearable device.
- Build an application that process the sound into binaural sound.
- There is no point of taking the risk of building an amplifier,as we do not have the experience
- Sound processing software that will provide realistic outside of head sound experience given 2 sound sources in order to make them more distinguishable.
- One of the use cases, as suggested by our client Dr. Bill Buxton, is in online voice conferencing. When every person appears to be talking from a different angle to the listener more than one speaker can be understood (as opposed to traditional approach when 2 people speaking just melt together and are both very hard to understand)!

- Possibly extend the software with functionalities that will allow to showcase the technology in more than one ways. This might include:
- Changing the positions of the sound sources in virtual space!• Having more than 2 sound inputs!
- Creating a demo VoIP program that will allow 3 computers to connect and use the newly developed technology to have a conversation between 3 people

25th of February 2014

This meeting was one of the quickest meeting we had. We finally knew what we were exactly going to do for the rest of the project.

- Ed successfully implemented a basic prototype that moves sound sources in 3D space using unity .
- Necati will implement the TCP client
- Dom will implement a TCP server
- Ed will further improve on the sound processing.
- Necati will start to build the website
- Dom will look into testing strategies.
- Preparation for the Milestone 1

12th of March 2014

This meeting took place after having done our milestone review.

- Necati successfully created a basic TCP Client
- Dom build a node.js TCP Server
- Ed has improved his 3D audio.
- Necati will further work on the client
- Dom needs to add feedback to the server

27th of March 2014

- Website layout successfully finished.
- Tests were written for the TCP server.
- TCP server was successfully implemented.
- Necati needs to add concurrency to the TCP Client.
- Ed successfully tested the 3D sound sources on the mobile platforms as well.

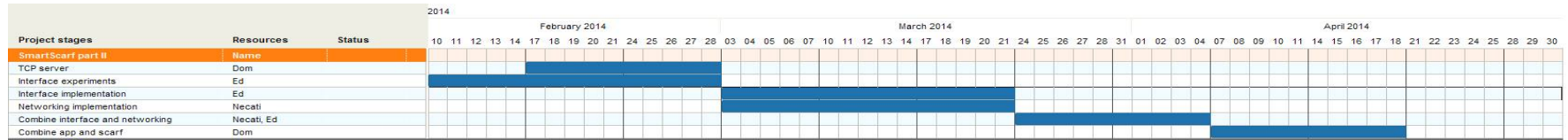
This was our last meeting face to face as we all be going to different places in Easter Holidays. However we have arranged skype meeting during the holidays.

7th of April

- Necati successfully implemented concurrency on the client.
- Incoming packets were received and sent correctly
- Fragmentation Test were performed on Connecting, Disconnecting from the server.
- Fragmentation test were performed on Sending and Receiving messages.
- Further Unit testing will be performed on exceptions.
- Ed needs to put the incoming sound sources from the server onto the objects
- Identification needs to be implemented

This was our last meeting, and we are on our way to finish the application successfully. There is few simple implementations needs to be done. Lastly an Acceptance test will be performed on the application. These are aimed to be finished in the next couple days. Afterwards we will do start writing the contents of the website and do our individual reports.

At each meeting we assigned ourselves a work package and here it is represented in form of gantt chart.



## Work packages details

Name	Description	Classes worked on
Server	This worked package includes of setting a tcp server and allowing multiple connections	Connectionpool.coffee index.coffee
Interface Experiments	Experimenting with moving sound source in 3D space .	Soundmanager.cs BackGroundmanager.cs
Interface Implementation	Adding user interface to the application so that it looks aesthetically better.	User.cs
Networking Implementation	Capturing microphone data. Sending Data to the server . Receiving data from the server and sorting out the received data.	User.cs NetworkBehaviour.cs
Combine interface and netwrking	Passing the received sound data to the sound objects that are placed in 3D space..	User.cs Network Behaviour.cs SoundManager.cs TargetFrame.cs SoundSoureBehaviour.cs