

Assignment 1: Functional Sound Design

DEC01013: Sound Design and Sonification

Context

For my assignment, I chose to create sounds for a fighter plane video game. This involved creating sounds which would attract the player's attention to emergencies in a very busy environment.

Within a video game, there are a lot of background noises and other distractions which players need to be aware of. I watched and listened to a lot of game play videos of popular fighter plane games to fully understand what sounds are common in most games. The sounds of bullets firing and planes crashing were abundant, so this led me to believe that the sounds I will be making would have to be loud enough to hear but not too deafening so the players would not get too distracted by the noise.

I then decided to create sounds which would be heard during vital moments of game play. This included:

- Alerting the player to incoming enemy fire;
- Engine failure/crashing;
- Enemy plane in view;
- Enemy plane locked, and;
- Enemy plane eliminated.

In many fighter plane video games, the sounds commonly associated with these events were loud and used a lot of modulation in an attempt to get the players attention and hold it until the event had passed. I also found that in real life fighter planes, the sounds used to alert pilots to enemies were high frequency, modulated tones. This led me to incorporate both elements of a fighter plane video game and real life fighter plane sounds in my functional sound design.

5 Functional Sounds

1. Enemy plane in view (4 – 10 seconds)

For this sound, it needed to be mildly alerting so that it would call the players attention when an enemy plane was in sight. I used one of the VCO controllers to find the right frequency which I felt was not too strong and then set the modulation rate somewhere under 10Hz. I also set the modulator source to VCO1 and its destination to HPF. What I was left with was a sound similar to what you would hear in a real fighter plane cockpit when an enemy was in range.

2. Enemy plane locked (10 – 18 seconds)

This sound was very similar to the previous one, in that I only changed the rate of modulation to something a little higher which also changed the frequency. I did not touch any other controls on the Vacuum. I felt that by changing the modulation rate to something higher, it instantly made the sound more alerting and attention grabbing so the player knows something more important is happening and that they need to destroy the enemy plane which they are locked onto.

3. Enemy eliminated (22 seconds)

In most games, when you eliminate an enemy the sound you hear is short and positive. For this sound, I changed the VCO range to 16', increased the Ringmod and used the Envelope generator. The Envelope generator was the most important. I increased the decay and the release so what I was left with was a short burst of sound every time a note was played. I also used a bit of modulation which gave the sound more of a gaming feel.

4. Incoming enemy fire (28 – 34 seconds)

This is probably the most crucial sound in the video game. When an enemy is firing at a player, what the player needs is a sound which demands all their attention and concentration. Again, I went for a high modulated sound with a high frequency which, when put together, are very attention grabbing. I changed the SHAPE in VCO1 to PWS0, increased the decay and release in the Envelope generator 1, and in the MOD, I used both EVO1 and MD as the source and their destinations were VCO1 SHAPE. I turned on the ARP and changed the rate to just over 1/8. I also slightly increased the rate of modulation. What I was left with was a high alert, heavily modulated sound with high frequency which screamed for the player's attention in such a crucial part of the game.

5. Engine failure/Crashing (35 – 40 seconds)

For this sound, I listened to what a typical engine failure sound would sound like in a normal plane. Essentially, what I needed to replicate was a high frequency, buzzing kind of sound which would indicate to the player that something urgent was happening and their plane was crashing. In VCO1 I increased the range to 4' and SHAPE to PWS0. I then changed the SLOPE in LPF to 12 and decreased the CUTOFF and increased the RESO. In the MOD, I put the SOURCE as VCO1 and its destination to the LPF and slightly turned the DEPTH to the left. I also turned on the ARP again and changed the RATE to a little over 1/4. Surprisingly, the sound I generated was quite close to what you would actually hear in a fighter pilot cockpit when something was wrong, so I was happy with this sound.

Credits:

Background sound in scenario is from the game "*Dogfighters*".