

## *Mixing of an electronic music track*

Mixing of an electronic music track is the last part to fix when the story is finished, before the mastering.

Personally I start to focus on that point at the half of my track / story. I do it once at that time, and then another time when all the story is written.

What is the purpose of the final mix?

When you write a track, you use a lot of sounds, which can easily disturb each other, and then put a mess between the sounds. A good quality track is a track where you can hear clearly each sound / frequency played in the track. Besides, they need to all fit together to give a flow effect.

Let's see all the important points to focus on:

### \*\*\* Equalization \*\*\*

Equalizing a sound means cutting the non-desired frequencies. A sound can include a large range of frequencies, while we don't need all of them to enjoy the sound. Then each sound of the track will have its own range of frequencies, which give the possibilities to play more than one sound together and to still hear them clearly.

In general, we have:

- \* Between 5 Hertz and 200 Hertz, the strongest part of the kick. Kick of course will go also at less volume into the higher frequencies, but it's better to cut it at least between 2 and 5 kHz, max 10 kHz, and to do a bell cut between 200 hertz and 1 kHz
- \* Between 20 hertz and decreasing till 5 or 10 kHz: the bass, with also a bell cut, to have it smooth with the kick, between 200 Hertz and 2 kHz (best around 500 hertz).
- \* Between 100 hertz and 5 kHz, the leads.
- \* Between 200 hertz and 10 kHz the snare
- \* Between 3 and 20 kHz, the hit hat

By cutting the unneeded frequencies, we give space to the track. It is then more nice to listen it.

You can use for example Fab Filter Pro Q, or any other equalizer with spectrum analyser, to see in live in which frequencies the sound is playing.

Kick:



## Bass:



## Hat:



## Snare:



### \*\*\* Volume \*\*\*

The volume of each sound is another parameter to focus on. The louder sounds will be heard from closer, while the more low volume will be heard from further. Let's also remind that lower frequencies sound with less volume than higher frequencies.

In general, we start to write the track with the kick at  $-8$  or  $10$  db, to give space in the track to put all the sounds under  $0$  db.

Then the bass will be equal in volume, or till  $2$  db less, than the kick.

With this settings to start, we'll then have the leads between  $-8$  and  $-12$  db, the atmos between  $-12$  and  $-16$  db, the percussions between  $-12$  and  $-20$  db.

We need to know also that, to send the final mix for the mastering, we must to put all the track at least  $-6$  db. So at the end, when all the mix is done, we lower the main stereo output volume to get the higher peaks at  $-6$  db. Even some people ask the track even lower volume of that.

### \*\*\* Stereo \*\*\*

To finish the mix work, we must now focus on the stereo. It's good to have a stereo analyser on the main stereo output, and to check each sound one by one to adjust the stereo of it.

\* Kick and bass need to be in mono. In the center they'll have more power, and will give space to the other sounds.

\* Percussions have small stereo, based in the center. You can find some stereo expander

wich will put the sound in spirale, what is really nice to use with the small hit hat.

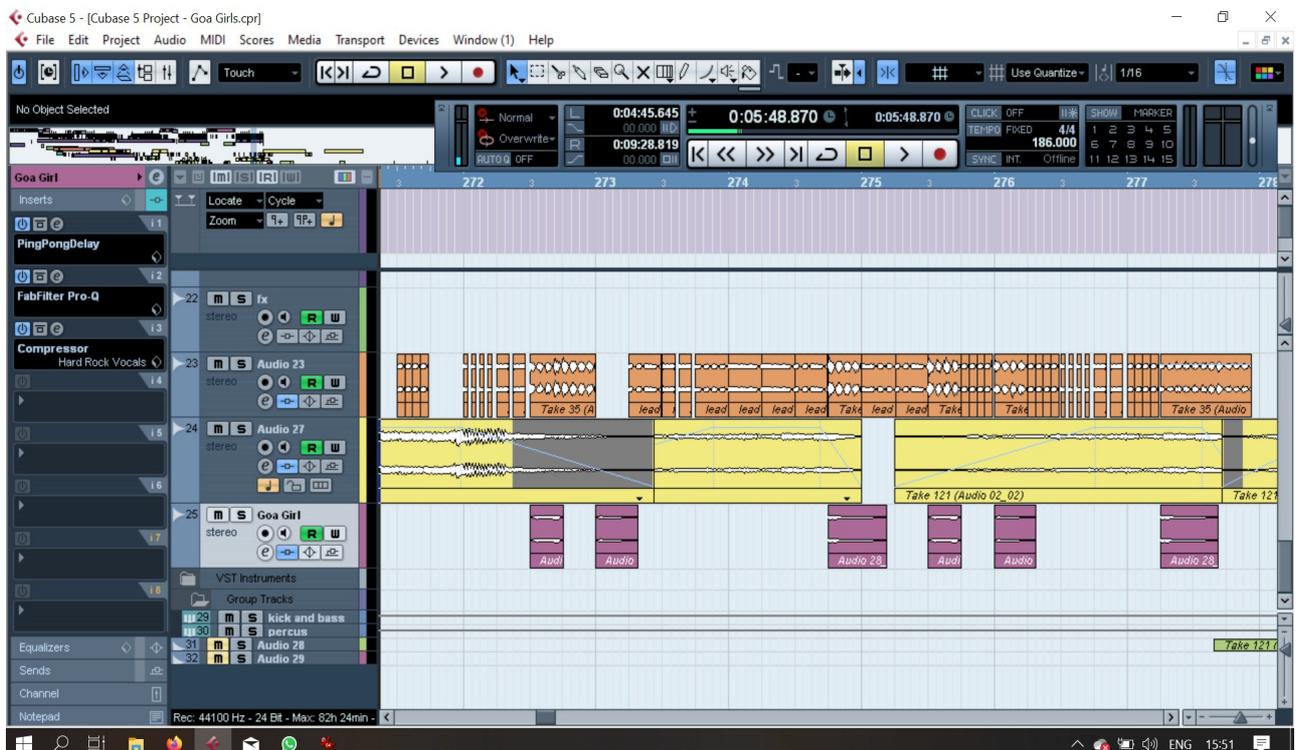
\* Leads can have more stereo than the percussions, but still based in the center. You can also play with one lead going from left to right, or right to left, but then it's better to duplicate the channel, and to put one in the center, and the other going from left to right. Even the duplicate part going from left to right, could change his pitch regulary (by staying in the same chromatic), what will give more interest to the track. Of course if you duplicate a track, you need to ajust the volume of each layer to have a final volume result ajusted with the other sounds of the track.

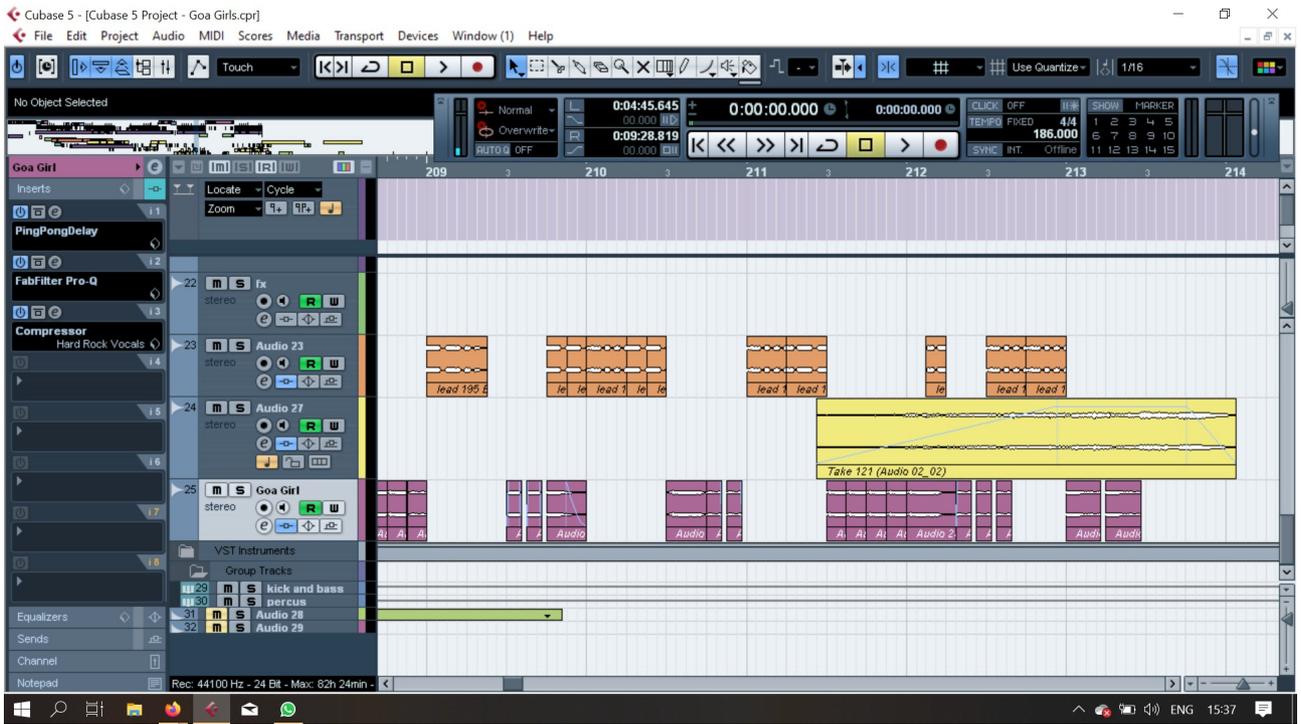
\* Atmos can have much deeper stereo. I recommand that each time a sound is going in strong stereo, to have a duplicate channel of the same sound playing more in the center. Because if not, only the listener who will be at the center of the speakers will hear properly this sound. The listeners who will be at left speaker, or right speaker, would listen the sound only when it is playing at its side.

### \*\*\* Space between the sounds \*\*\*

A last parameter to put the focus, but more while you write your story than at the final mix, is to care that not too much sounds, or similar frequencies, play at the same time. Remember that, as listener, we can sometimes feel a sound is all time here, while in fact it comes and goes all the time.

Here and exemple of what I mean:

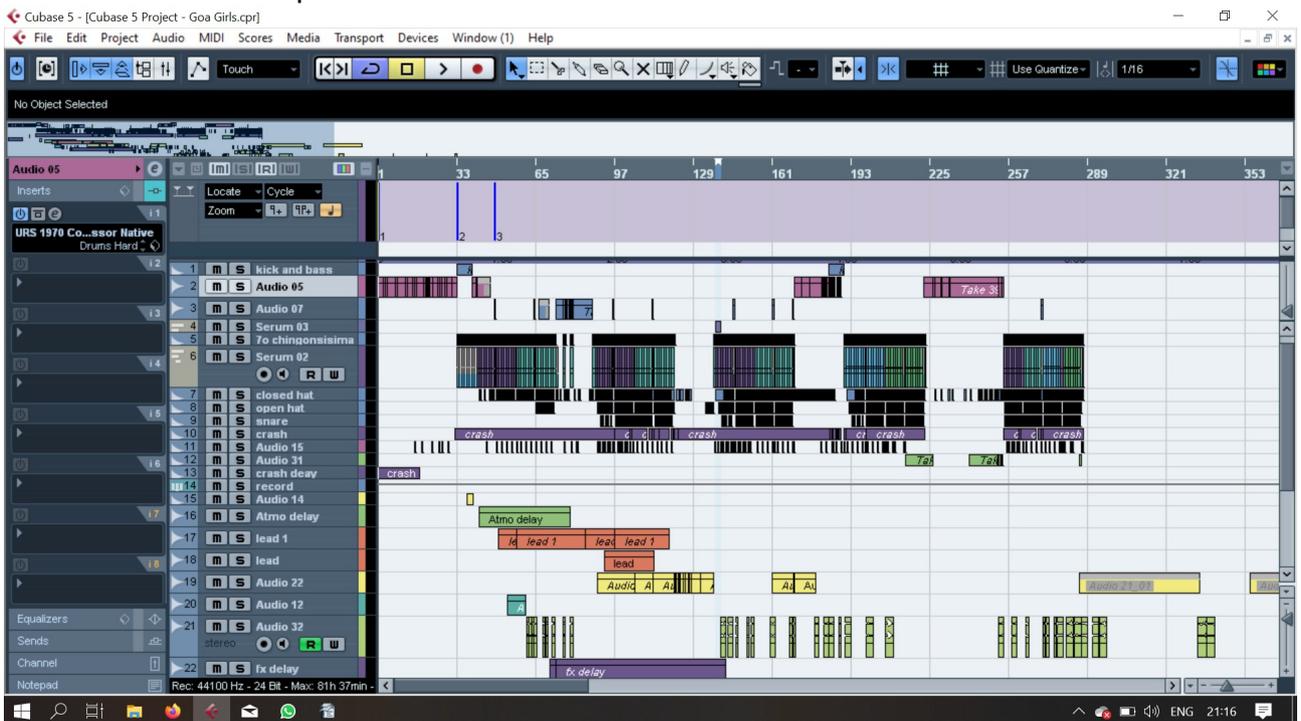


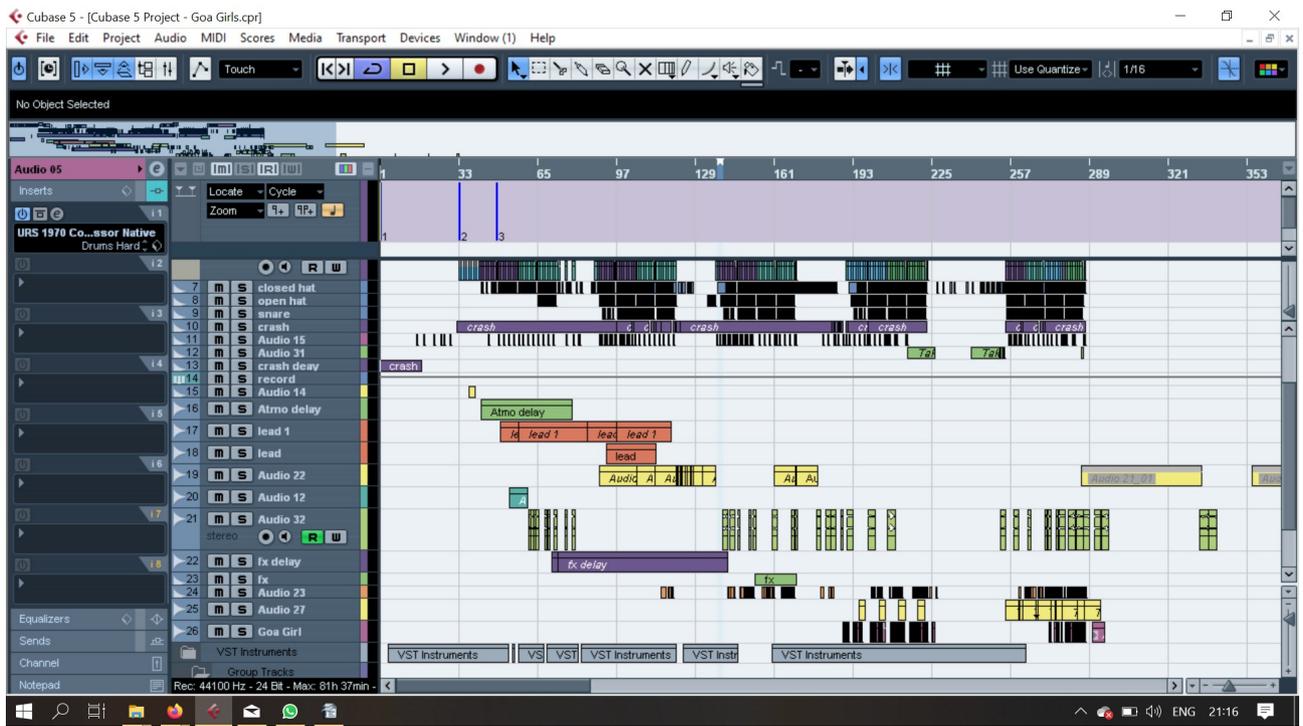


We can see in this 2 pictures that sounds are chopped to not play at the same time, regarding that sounds play already at the same time of kick and bass and percussions. Also orange sound and purple sounds are 2 leads, so with similar frequencies. They answer one to the other.

The yellow sound is an atmo, so playing longer, but there is long fade in and fade out to give more space to the leads.

Here a full track in 2 pictures:





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