

The following tasks are to be solved in group work.

Complete your tasks and submit a report named “P2_GXX.pdf” to my email asapinto@fe.up.pt, by the end of this class (or as soon as you finish it, always before next class). The subject of the email should be “Practical Class P2 – Group XX”.

Task 1. Analysis of Sounds (Sonic Visualiser)

Make use of the sounds in sounds.zip

- Pick one pure sound and one complex sound from the pool of sounds.
- Make use of different visualisations on the software tool (SV), and for each of them, state which sound you picked and describe the following (in some cases a single value is the expected answer, in others where that is not possible, describe in a single sentence):
 - Amplitude
 - Period
 - Frequency
 - Sustain part (envelope)
- pick the other sound in this list which is more similar to the initial one you have chosen. Justify why they are the most similar?
- pick the other sound in this list which is more dissimilar to the initial one you have chosen. Was it less or more difficult to choose than the similar one?
- Experiment with the following visualisations with the above sounds and explain what you see.
 - Waveform
 - Spectrum
 - Spectrogram
 - Compute and analyse some audio descriptors (with MIR-EDU Vamp Plugin)

Goals

Get used to Sonic Visualiser GUI;

Create new panes to visualise:

different sonic representations (e.g. waveform, spectrum, spectrogram),

audio descriptors/low-level (e.g. spectral centroid, RMS);

music representations/mid-high-level (“Tempo and Beat Tracker: Beats”, “MELODIA - Melody Extraction”)

Experiment with other files, always trying to visually confirm all the “information” your ears perceive!

You may also check [these Sonic Visualiser guides](#).