Challenge #5 – Automation and Gates
Recording, Engineering, and Mixing

For Challenge #5, I've posted a new song on the student file server in the Challenge #5 folder called "Hakon". You can use any song you'd like of similar complexity (you can't reuse a song that you've already mixed before, though!).

This only new techniques this challenge will involve are automation and gates. In addition to using automation and gates, your goal should be to apply the techniques you've already used in a way that SOUNDS good.

Requirements:
1. Add folder tracks to the song. You should have folder tracks for the drums, organs, guitars, and vocals.
2. Adjust volume and pan levels for each track. This will be ongoing – you will need to adjust these as you make changes to the other aspects of the tracks.
3. Add compression – to EVERY TRACK (or every folder). Make sure that the compression is tasteful, subtle, and sounds good. Your goal should be to have about 3-5 db of compression at the most. If you're using ReaComp, adjust the threshold and ratio so that just the loudest parts of the track are being compressed; adjust the attack so that enough of the initial transient comes through to retain the character of the sound. You can also use the compressor called Blockfish; if you do, make sure that you're not applying too much compression – and adjust the speed dial so that the tracks sound natural and open.
4. Add noise gates to the drum tracks and the lead vocal. Solo each of the tracks so that you can clearly hear the effect that the gate is having on the sound. Rearrange the effects in REAPER so that the noise gates are coming BEFORE the compressor. The noise gate should be adjusted so that you hear all of the sounds you want to hear – for example, every snare drum hit should be audible – but as little of the other sounds as possible – so in between snare drum hits, the rest of the drum kit should be difficult to hear. Make sure that you adjust the release of the noise gates so that you can hear the entire sound – the drums and singing should not be cut off too soon.
5. Add EQ (this should be on around 80% of tracks) and adjust properly. Experiment with placing EQ before compression and vice-versa.
6. Use DrumReaplacer to fix the kick drum if necessary.
7. Add special effects to individual tracks (this should be on around 30% of tracks)
8. Add reverb as a send effect for vocals, guitars, drum overheads / snare, and keyboards
9. Add delay as a send effect for vocals
10. Automate various tracks in your project with the following minimum requirements:
    a. On one track, use the "write automation" feature to automate the volume (or pan).
    b. On a different track, use the "drawn automation" feature to automate the pan (or volume).
    c. On a third track, use the "write automation" feature to automate a parameter for a special effect (such as delay, EQ, or a flanger).
    d. On a fourth track, use the "drawn automation" feature to automate a parameter for a special effect.