Dubbing Animated Films

The Process of Re-voicing Characters for a
Major Studio Animated Film

Andres Nõlvak

ABSTRACT

Tampereen ammattikorkeakoulu
Tampere University of Applied Sciences
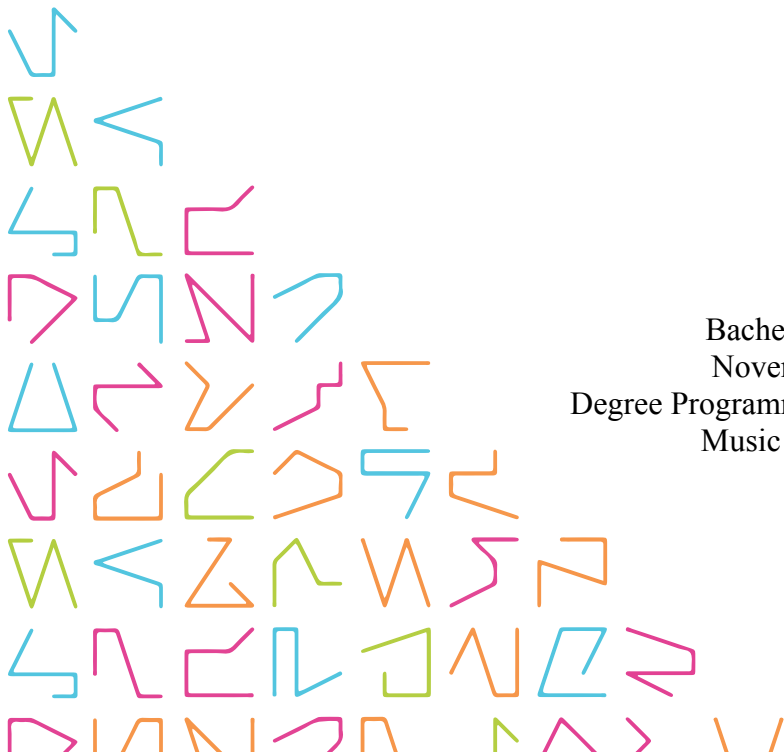Degree Programme in Media and Arts
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Animated films have used voice-over actors to bring characters to life for almost a hundred years. Nowadays many of those actors are replaced by the voices of local actors when films are distributed to different countries. This thesis describes the process of localizing animated films through voice over from the perspective of an audio engineer.

This study was carried out as a project. Interviews were conducted as a part of the study. Technical information about project preparation, sound recording, editing and mixing is provided.

A major Hollywood studio animated film was dubbed as a part of this thesis. The thesis describes the whole process of dubbing from pre-production to the successful completion of the project.

This thesis is an attempt to provide a simple guide to future students of audio engineering who are interested in working in this field. A person who has knowledge on audio engineering will be able to understand the steps of how an animated film is dubbed to a different language.

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CONTENTS

ABBREVIATIONS AND TERMS

As Rec	As Recorded
Compressor	Audio device that reduces the dynamic range of an audio signal
Control Room	Specialized room for where audio work can be monitored and controlled
DAW	Digital Audio Workstation
POP	1KHz tone used for syncing audio and video
Preamplifier	Audio device that boosts the incoming audio signal to line-level
TAS	Track Assignment Sheet – a document that describes how project file needs to be formatted
Timecode	Sequence of numeric codes used in video production used with applications which require temporal coordination
Vocal Booth	Specialized room with sound dampening for the purpose of audio recording
Walla	Non-distinct dialogue

1 INTRODUCTION

Animated characters on screen have been brought to life with sound for nearly a hundred years now (Platt 2012). Dialogue in an animated film can be as critical for understanding the narrative as in live-action film, but voice over also helps to connect with an animated character. While production companies pay nowadays A-list celebrities to voice characters in animated films, many markets re-voice those characters in their own respective languages. (Meslow 2011.)

The process of re-voicing those characters is called dubbing. Local actors are used to read the translation of the script over the already animated picture. The performance needs to be lip-synced to the picture and the original voice is used as reference to mimic the performance, nuance and acting of the original voice. (CMI 2016.)

This thesis provides an overview how this process is overseen by the perspective of an audio engineer. How does a dubbing project start? What tools are used? What is expected from an audio engineer? What materials are provided to the dubbing studio? How to prepare a project? How to execute the project and how to deliver it.

Dubbing is somewhat of a niche field. Blockbuster animated features are usually already voiced in English, so not much information can be found on this subject. The thesis is based on working as a sound engineer on dubbing of two major Hollywood studio films during summer and autumn of 2018. Also, two expert interviews were conducted with employees who both have experience on working over thirty big budget animated feature dubbing projects. An additional interview was conducted with an employee of a local film publishing company.

2   EXPERT INTERVIEWS

2.1   Jette Karmin (Appendix 1)

Jette Karmin is a dubbing producer and dubbing director (Orbital Vox Studios 2017). She has worked as a producer on over forty major studio productions and as a dubbing director on over fifteen productions. She has worked with clients including the likes of Disney, Universal, Sony Pictures etc. I interviewed Jette about the reasons for dubbing, how dubbing projects are administered and also about directing. (Karmin 2018.)

2.2   Markku Tiidumaa (Appendix 2)

Markku Tiidumaa is a sound engineer who has worked on over thirty major studio dubbing productions as a sound director (Orbital Vox Studios 2017). His first film was Toy Story 3 for Disney Animation Studios in 2010. Before working on film dubbing, Markku was a music producer and mix engineer. I interviewed Markku about audio specifics in dubbing projects. (Tiidumaa 2018.)

2.3   Tanel Vettik (Appendix 3)

Tanel Vettik is a marketing specialist who works at ACME Film Estonia. They are a known publisher of films in Estonia and regularly publish animated films that are dubbed to Estonian. I asked Tanel about the reasons behind ordering dubbing for a film. (Acme Film.)

3 ORIGINAL VOICE TO DUBBED VOICE

3.1 History and first animated films with voice-over

It is known that the first animated film with voice over was "Steamboat Willie" where Walt Disney himself voiced Mickey Mouse. Specialized actors called voice actors started concentrating on this line of work. They were trained to provide voices to wide array characters, but they were mostly unknown to the general audience. (Platt 2012.) Only recently, about twenty years ago, this started to change.
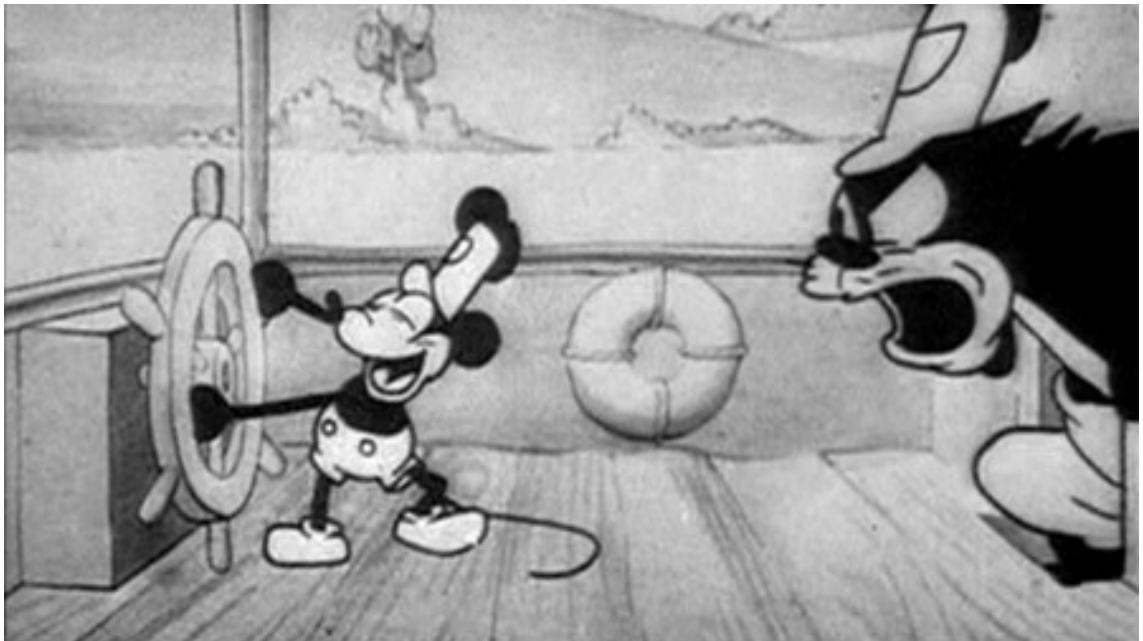
PICTURE 1. Mickey Mouse in Steamboat Willie (mickeymousecartoon.com)

In 1992 Robin Williams was cast in Disney's Aladdin as The Genie. Williams was excellent comedian and an improviser who went often off script. His performance was so good, that even though his character was not the main character, it was the most marketable and what the audience most associated the movie with. This also meant that people went out to the cinema to see Robin Williams as The Genie. (Meslow 2011.) So why to re-voice a character to a local market if a character has already been voiced by a famous international star talent?

3.2   What is the reason for dubbing?

Films are dubbed mostly for children. Animated films are usually a family experience, parents go to the cinema with their children (Vettik 2018; Karmin 2018). It is difficult for children to read subtitles and characters who speak in their own language are more relatable for children. (Karmin 2018). Additionally, when animated characters are voiced by known local actors, the films can be marketed with their faces (Vettik 2018). But how is the voice of a characted replaced by another actor?

3.3   Simplified concept from the point of view of the audio engineer

The basic procedure for dubbing is following: an actor, who performs the voice of a character, is in a vocal booth. The sound engineer, who records the performance, and dubbing director, who oversees the process, are in the Control Room. The actor is looking at a TV screen, which displays a video of the material, that needs to be dubbed.

Actor's lines are written down on a script. The script and the screen both have timecodes which refer to a certain spot in the video. Relevant timecode values are provided to the actor by the dubbing director, who assists the actor with performance while monitoring where the actor needs to say the line and how many lines there are left to record (Karmin 2018). The sound engineer uses the same said Timecode value to get to the needed timeline location.

When the sound engineer is ready, he/she will inform the actor, that the clip can be played back. The clip will be played with the original voiceover. With first playback, the actor and dubbing director assesses the original voice performance and if the translation is suitable for said scene. If everything is alright, the clip will be played back again and the actor either performs over the original voice (or performs immediately after the said clip has ended).

PICTURE 2. Vocal booth with the actor (Photo: Andres Nõlvak 2018)

During performance the sound engineer checks that there are no technical issues or un-necessary noise is the recording. If the performance was successful, the recorded audio is played back immediately with the newly recorded voice over and then once again with both the original voice and the dubbed voice over to compare performance and lip sync. If everything is suitable, the dubbing director moves to the next box. With very long lines, the performances are divided into pieces and later combined and checked for consistency. This is repeated until there are no lines left. Later the lines are edited for better sound and lip-sync. (Tiidumaa 2018.)

PICTURE 3. Control Room with dubbing director and sound engineer (Photo: Stanislav Moshkov 2018)

## 4   THESIS PROJECT – DUBBING FOR A MAJOR STUDIO

4.1   Introduction to Project

The project of this thesis was actually two projects for two separate well-known international film production companies (Appendix 4). First film was a sequel to a very popular 2004 animation and it was released in June 2018, the other in November 2018. They were both done for a different film studio and had some differences. For the sake of simplicity I am going to refer to both films as one project.

4.2   Preparation

The first thing I did for preparation was to learn the most used keyboard shortcuts that are relevant for the dubbing recording and work. It is important to understand that recording is time sensitive, the actors are paid an hourly wage, so knowing your keyboard shortcuts by heart helps (Karmin 2018).

It is also important to make sure your tools are calibrated. External TV screens usually cause a latency called input lag, which is measured in milliseconds. Input lag can cause issues with lipsync. (Morrison 2013.) It is important to know this and compensate with adding the Video Offset value in your DAW settings. A simple way to do this is to play a timecode on the main monitor and your external monitor that is used for video display. Photograph the timecodes while the sequencer is playing and you will get the latency difference of the main display and the video display.
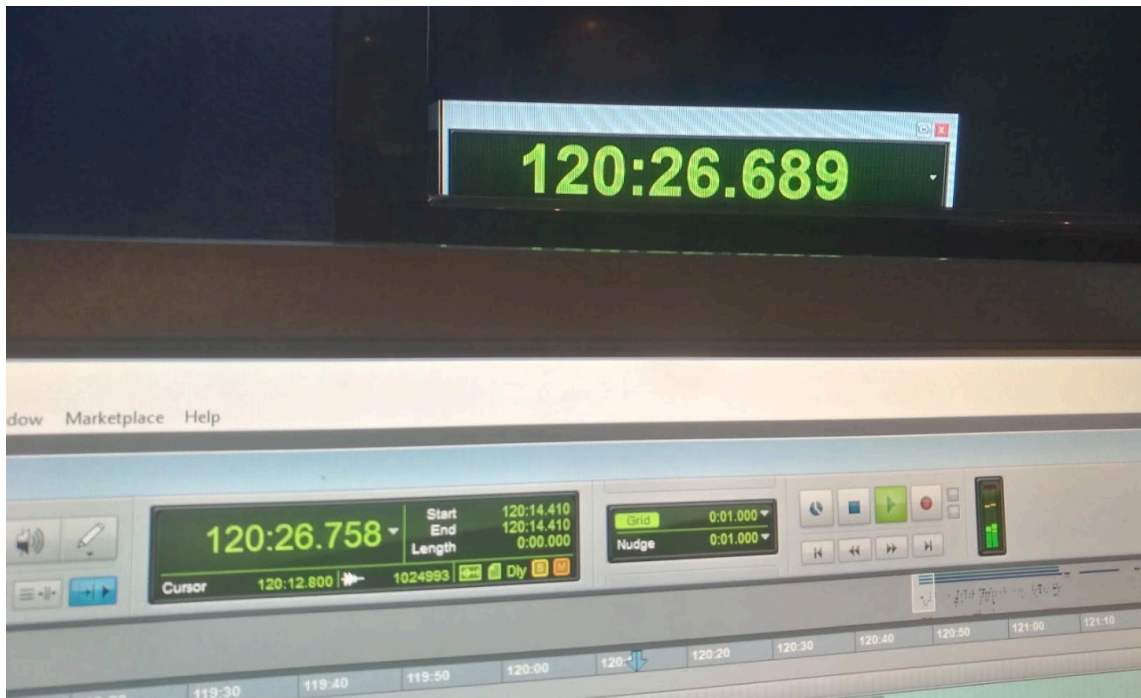
PICTURE 4: Same timecode played back on the main computer display and an external TV display. The external TV has a latency of an additional 69 milliseconds. (Photo: Andres Nõlvak 2018)

Another step is to make sure your monitoring settings are correct. The actor and audio engineer are usually situated in two separate rooms, ideally connected with a window as you would like to see the actor as he or she is performing, to assess the positioning of the microphone and the movement of the body. The actor needs to hear the original dialogue from the film to assess the performance, but also the comments from the audio engineer and the dubbing director. A "talkback" system needs to be implemented. An additional microphone is added to the control room and the signal routed to the actor's headphones.

5   TOOLS AND PRACTICES

5.1   Steinberg Nuendo

Steinberg Nuendo is one of the most advanced audio post-production software available today. It has some common features like linear sequencer, VST support, audio and midi editing which makes it not too different from other Digital Audio Workstations. However, it is focused primarily on film, TV and game audio and thus has some advanced featured like batch editing, built-in modern EBU-compliant loudness metering and normalization, multichannel support, built-in pitch correction, easy comping and it supports adding several videos on one timeline. (Steinberg 2018). Nuendo was used in my project for it's built in pitch correction tools.
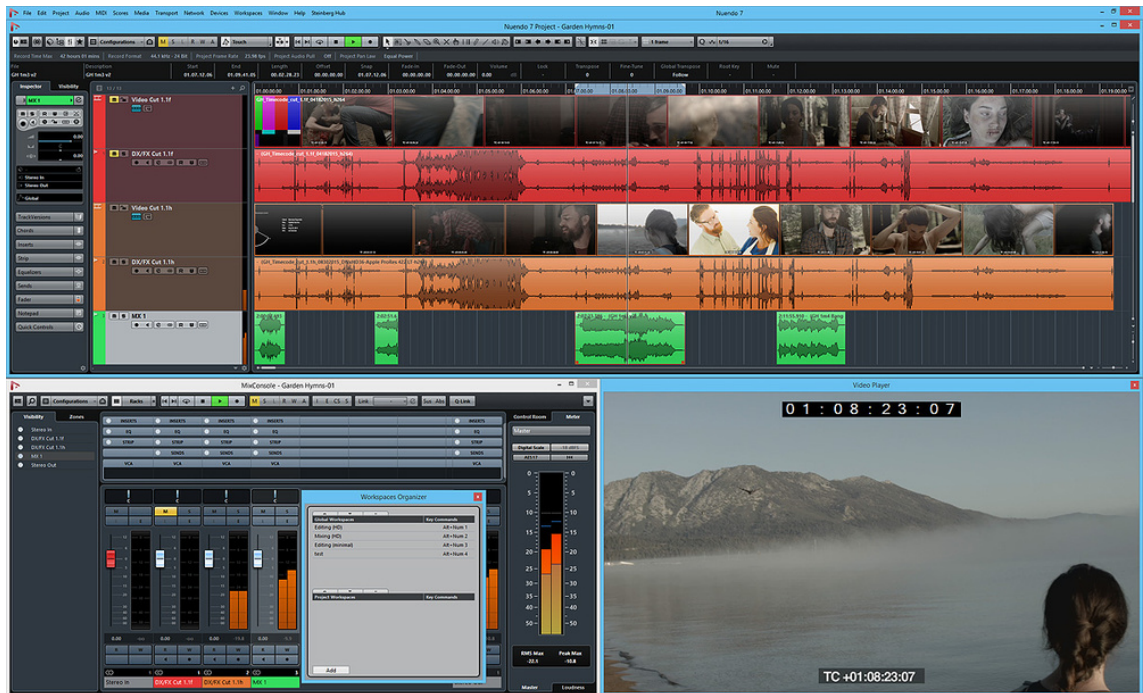

FIGURE 1: Nuendo Interface (soundonsound.com)

5.2   Avid Pro Tools

Avid is an industry leader and it's products are a standard in audio post production. Many blockbuster films are nowadays voiced with Avid products (Avid 2018). While Pro Tools is also a DAW focused on music creation, there is also a more advanced ver-

sion of the product called Pro Tools HD (since 2018 Pro Tools Utimate). Pro Tools HD, unlike it's regular version, has surround audio support and some additional features like automatic fades and the possibility of having several video files in a project (Avid 2018).

5.3   iZotope RX

iZotope RX is another audio software that is an industry standard for audio post production professionals (Izotope 2018). RX are a suite of tools that essentially simplify audio engineers work they get rid of annoyances and hindrances in sound recording. There are two main problems when recording voice-over. Plosives are strong blasts of air that create a massive pressure change at the microphone's diaphragm, and happen most often with strong p, t, k, and b sounds (Izotope 2018). Mouth clicks are mouth noises that naturally occur in our mouths when we speak, but can be detrimental to audio quality: lip smacks, teeth clicks, spit bubbles. The tools in RX are designed to remove those hindrances. Before assistant tools like RX, engineers needed to clean up the audio tracks manually: remove the low frequencies in plosives with equaliziation or cutting out the mouth clicks with pen tool (Tiidumaa 2018).
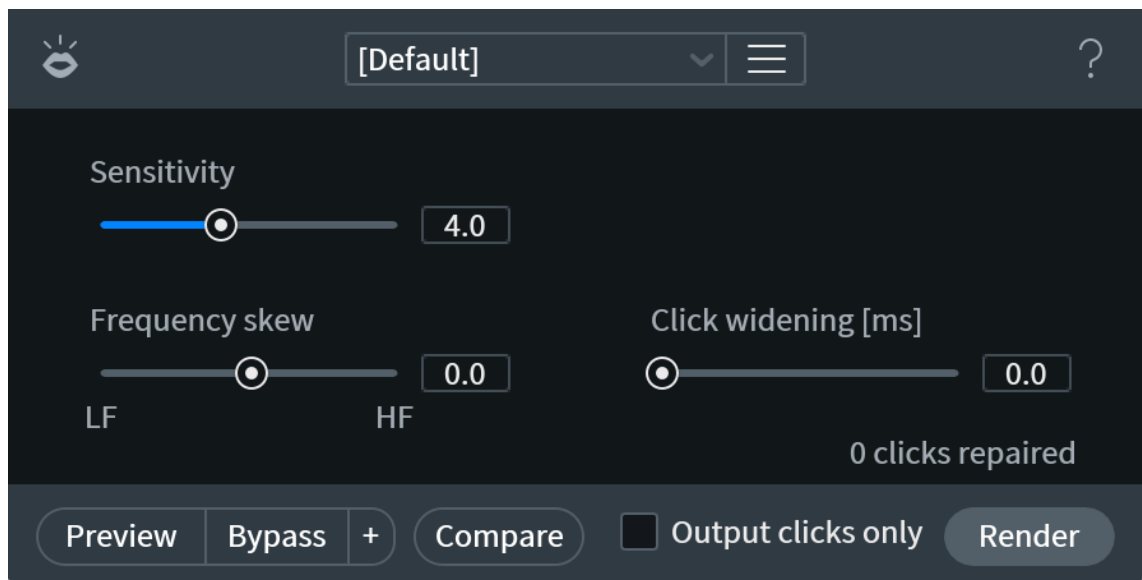
FIGURE 2: Mouth De-Click tool for removing mouth noises (iZotope.com)

6 PRE-PRODUCTION

6.1 Track Assignment Sheet

TAS or Track Assignment Sheet is a document provided by the production studio to the dubbing studio. The dubbed films are usually filmed centrally in one location and the mixing facilities use templates for mixing. Thus, it is important for them to have consistent naming conventions and project layouts from the dubbing studios. (Tiidumaa 2018.)

Among many things, TAS document specifies the file type and bit depth of the recorded audio. It also specifies, what to name the project and how to name the tracks. During post-production, films are usually split up into smaller 15-25 minutes long sections called reels. This is to make the projects more manageable and easier to collaborate on. (Noam Kroll 2017). Every reel should start at the correct location and have correct naming as per TAS. (Tiidumaa 2018.)

FIGURE 3: Pro Tools session with a clean and correct layout. Note location of reference tone, head pop, name of project and naming of the tracks. R1 specifies the reel number (Andres Nõlvak 2018)

TAS also specifies the location of Head and Tail POPs (also known as 2-pop) and the reference tone. 2-pop is 1KHz tone that is used to sync the picture and audio (Jacobson 2012, 369). Reference tone is 30-60 second 1KHz tone that is used to calibrate the monitoring system (Winters 2017, 27.)
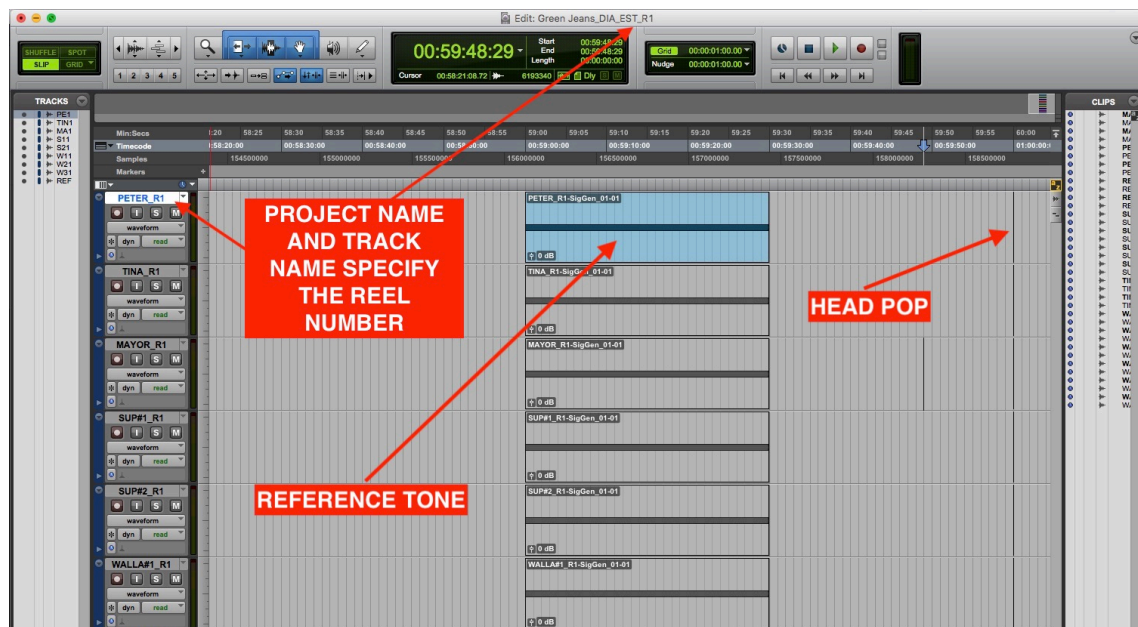
6.2 Trailers

The dubbing process starts with the dubbing of trailers. Trailers were sent us several months ahead of the actual full feature dubbing. This means that we had not seen the full feature yet. I will discuss the recording in more detail in the actual production phase, but there are two details that are to be noted when dubbing trailers. (Karmin 2018.)

First: the voice actors in the trailers are not finalized and not necessarily the same as in the full feature. This is due to production scheduling. (Karmin 2018.) Second: trailers may need to be edited to different frame rates. 24fps is the standard for cinemas and 25fps is the standard for European television. It is important to note that 25fps is about 4% shorter than 25fps. So the trailer voice-over can be recorded to 24fps and the dialogue resampled or time-stretched to 25fps. Multi channel files cannot be time-stretched individually as doing that may cause anomalies between the stereo image of the left and right channels. (Kolk n.d.)

6.3 Voice-Tests – Selecting the voice talent for the film

To select the voice talent for the full feature film, the dubbing studios are provided short sequences from the film. The video files have stereo audio where one channel is the original voice-over and the other is music and effects. This makes it easy to separate the original voice-over from the video file. The performances are recorded and sent back to the production studio with the original voice on one channel and the recorded voice on the other, for the production studio for analysis. Exact translation and lip-sync are not as important as in the full feature film as the acting delivery is more focused on. The dubbing director chooses the actors for the voice tests. A regular big budget film can have up to 20 voice-actors. For the main characters, well-known film and theatre actors or

experienced voice-actors are used. Background characters are chosen by the dubbing director and do not need a voice test. More important characters can have 2-3 candidates. (Karmin 2018.)

6.4   Materials for the full feature film

Materials were provided to us as Pro Tools sessions. The files are in 5.1, 7.1 or Atmos configurations. Which materials should be used depends on the configuration that the film will be screened in. The files include the tracks for the original voice-over, the effects, the music and the original full mix. There can be additional tracks called optionals. Optionals are tracks for the crowd scenes or *wallas* or non-verbal effort and reaction sounds. They can be used in the project or layered with local recording to mask the original language. As they are called "optionals", this is by the judgement of the audio engineer. For example it is sometimes economical not to dub every scream or yell when in the end it will sound similar to the original voice. (Tiidumaa 2018.) Since the film is divided into reels for easier collaboration (Noam Kroll 2017), the audio files are divided identically to match the video.

One important thing to remember is that, the material is not always delivered to dubbing studios as the final version. The dubbing studios might receive material as "work in progress" called preliminary (P1, P2, P3 etc.). The preliminary versions might have unfinished animation, but what is more important, unfinished audio. The edit and mix can be changed by the production studio during the dubbing phase (lines removed or added). Eventually the final version is locked and delivered to the dubbing studio. (Tiidumaa 2018.)

6.5   Importance of translation

Translation is an important part of the dubbing process. The amount of syllables in the original voice needs to approximately match the syllables amount in the translated script so the lipsync would seem believable. The viewer needs to forget that he or she is watching a dubbed version instead of an original (Geringas 2015). However, for security reasons, translators are not always allowed to work offsite. This results in blind trans-

lation, that sometimes, even if the syllable count is the same, does not match the original delivery due to timing or cadence differences. So quick fixes to the translation during recording are sometimes necessary. (Karmin 2018.)

01:00:08:11	FEMALE PHONE ASSISTANT	(over speaker) What can I help you with, Lord of Darkness?	Kuidas saan teid aidata, Pimeduse Vürst?
01:00:10:14	DRACULA	I'm looking for a date.	Ma tahaks tüdruksõpra.
01:00:12:22	FEMALE PHONE ASSISTANT	The date is Friday July 13th.	Tahate õhtuks põtra?
01:00:15:04	DRACULA	No, no. I want to meet someone.	Ei, ei, ma tahan kedagi kohata.
01:00:17:18	FEMALE PHONE ASSISTANT	Understood. You want to eat dim sum.	Selge. Tahate kedagi tohlakat.
01:00:19:22	DRACULA	Don't you get it? I want to go on a date… I'm (pause) lonely.	Kas sa aru ei saa? Ma tahan kohtingule… Ma olen nii üksik.
01:00:25:15	FEMALE PHONE ASSISTANT	I understand. You want bologna.	Saan aru. Teil on konni püksis.

PICTURE 5. A snippet from a script. Note the handwritten change in the script (Andres Nõlvak 2018)

7 PRODUCTION

7.1 Recording

I have already briefly touched the subject of recording, but will now give more details. We situated the microphone stand and the script stand, so the actor could see both the script and the screen easily. The actor's mouth is about an arms length from the diaphragm. The microphone was a high quality Neumann brand. The Drawmer had an included Vacuum-Tube compressor. It is important to note, that the characters in films have a high dynamic range, from whisper to loud screams. A compressor makes it easier to gain stage the microphone so that loud noises do not clip the converter. (Tiidumaa 2018.)

PICTURE 6: Actor should be able to see both the script and the screen unobstructed (Photo: Stanislav Moshkov 2018)

We recorded each character one by one, except for wallas (more on that later). In the vocal booth, we used closed back headphones from Beyerdynamic. It is important to that any leakage from the headphones does not make it into the microphone. In fact, during the first day of the recording I already made a mistake. I forgot another pair of headphones in the vocal booth and did not notice the leakage to the microphone due to too low level monitoring! I had to do a lot of editing to salvage the recording. Make sure, that any additional headphones in the vocal booth are muted so any unnecessary signal does not get picked up by the microphone!
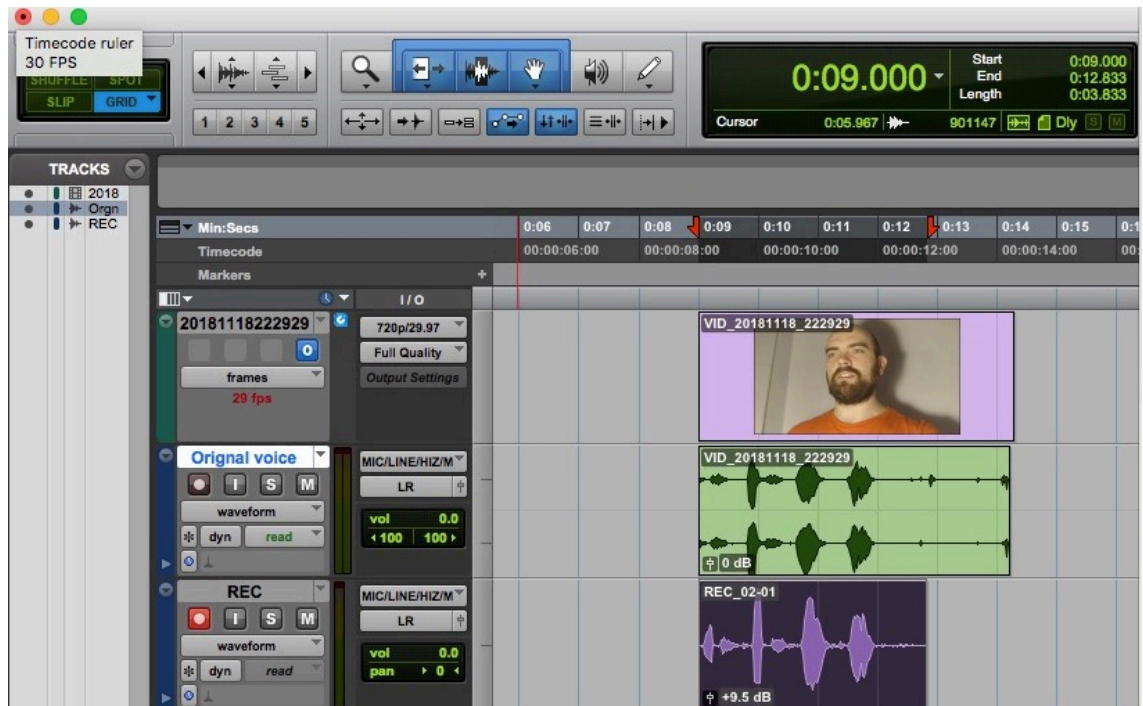
When hardware setup was done, we made sure the Pro Tools session for recording was properly set up. We created the necessary tracks for all the characters and named them according to the Track Assignment Sheet (Tiidumaa 2018). TAS also specified any common use tracks for supporting characters and wallas that can be recorded on the same tracks. It is important to name the tracks correctly already in the beginning so the files that will be recorded will get correct naming. We added the provided video and audio materials to the project. The necessities are: the video file of the material to be dubbed, the audio track with the original voice-over as the guide track and the optionals tracks if available. We also included the M&E or Music and Effects tracks to the sessions to check the recording in context with the film. project. Track Assignment Sheet specified where to spot the video and audio files on the timeline. We added some empty tracks to place the double takes to. This makes it easier to find the recorded double takes for all the different characters, since they are in one spot. Note that if the film is divided in to several reels, this setup needs to be done for all the reels. To make this process simple, Pro Tools includes a possibility to make a template from your project.

FIGURE 6: How a project for dubbing could look like (Andres Nõlvak 2018)

We asked how would the actor prefer to overdub the original voice. There are two methods that we used. First is to listen to the original voice and then try to perform over it while matching the speed, intonation and feeling. The second is to listen to the original performance and perform after the original performance.

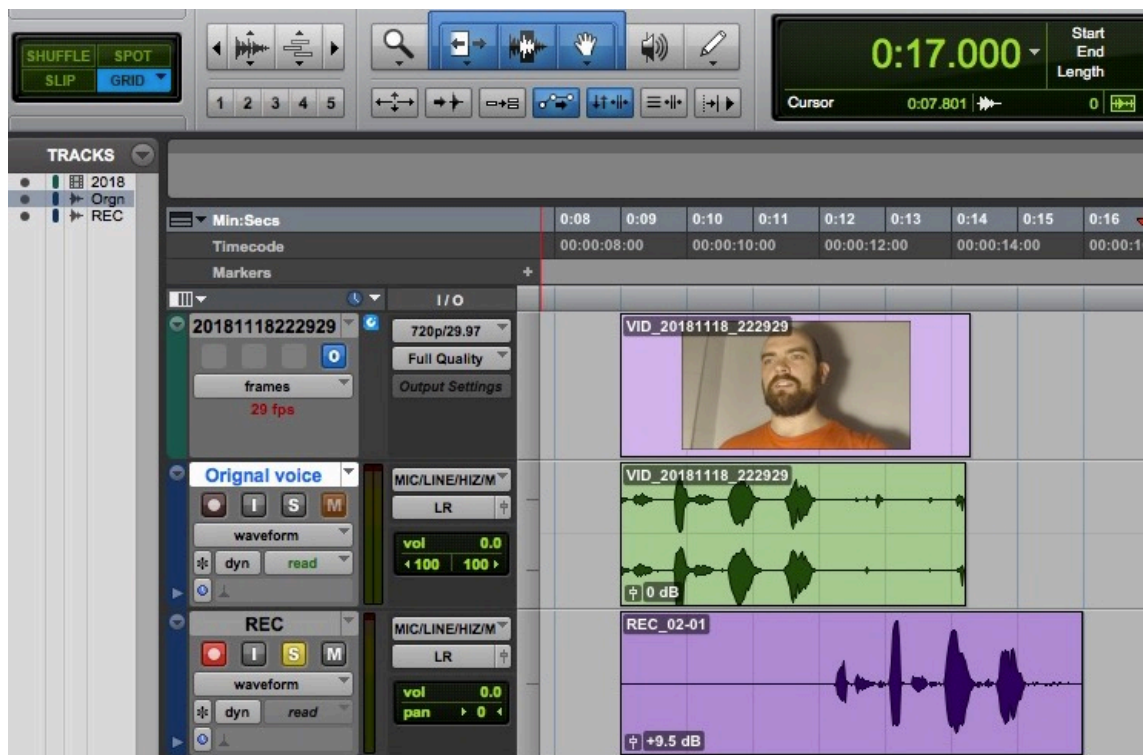FIGURE 7: Recording over the original voice (Andres Nõlvak 2018)

FIGURE 8: Recording after the original voice (Andres Nõlvak 2018)

As we were recording one character at a time, I tried to make sure that the dubbed re-cording matches the length of the original voice, so that one characters line does not overlap with the other's unless it is similarly intentionally done in the original voice.

Sometime it was difficult for the actor to perform a phrase with similar timing as the original voice, but if the difference is small, it can be fixed in editing.
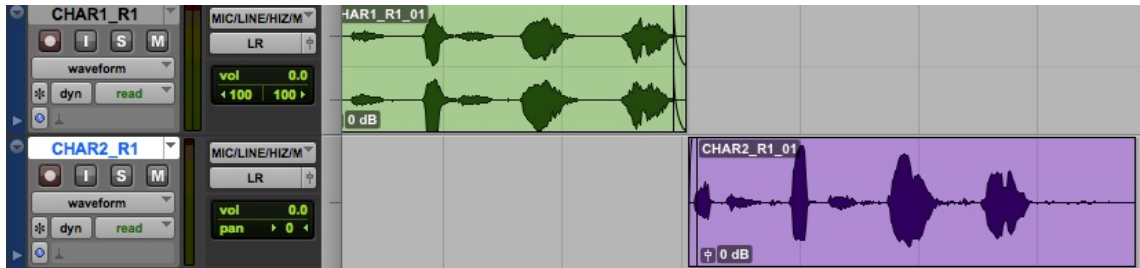

FIGURE 9: Dialogue should not overlap unless intentional (Andres Nõlvak 2018)

FIGURE 10: Takes are roughly placed in their intended place by comparing to guide track, but no additional editing done. (Andres Nõlvak 2018)

During recording I moved the recorded lines already roughly to sync with the picture to win time in editing. This can be done easily when comparing the recorded line wave-forms with the original voice waveforms from guide file. When most of the characters lines were recorded, we started to record crowd scenes or wallas.

Wallas used to define undefined background conversations that set the mood in a scene. Nowadays wallas are based on real text and real conversations, so original English wal-las need to be dubbed aswell. (FilmSound.org) We recorded the walla tracks with 4-5 people together in one vocal booth. Each walla artist said their line one by one, so we could layer them as needed.
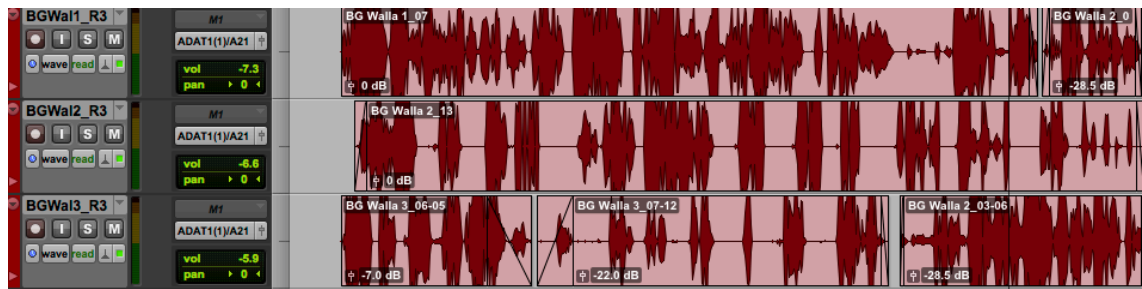
FIGURE 11: Wallas were recorded separately so they can be layered (Andres Nõlvak 2018)

APARTMENT RESIDENTS	04:07:00:18	<confused walla> What is that? (continues)	~~Mis see on?~~
PEOPLE IN ROOM	05:00:08:01	<walla> (continues under following dialogue)	(jutuvada)
PEOPLE IN ROOM	05:00:39:07	<cheering walla> **Hear, hear!**	(juubeldavad)

FIGURE 12: Walla script (Andres Nõlvak 2018)

7.2 Editing

Editing is in a way already a part of dialogue recording. As I mentioned in previous paragraph, sometimes actors were not able to perfectly match the tempo of the original so small time-stretches could be done already in recording phase, to see if a section of the recording is passable and we could move on. In editing phase, this is done in more detail. When editing, I concentrated on two main things. Technical editing and lip sync.

Technical editing is to check that the audio quality is good: no clipping, no mechanical noise like the sound of actor's clothes moving, no other anomalies in sound. If necessary, I would choose alternate takes if there are problems with audio quality. If that is not the case, then the take needs to be fixed. Regular problem was with mouth noises: click sounds, spit bubbles etc. The reason to move them is simply because they sound bad (Tiidumaa 2018). I removed some clicks with with the help of Izotope RX and some just by cutting them out.
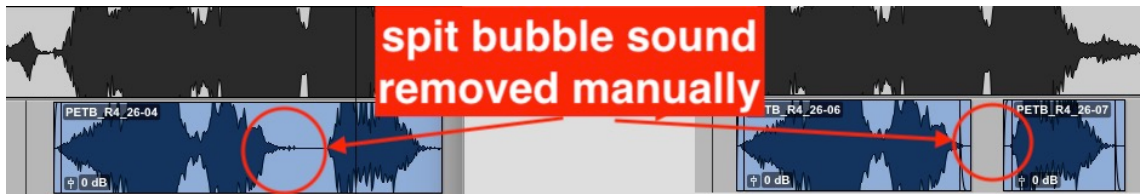
FIGURE 13: Spit bubble removed manually (Andres Nõlvak 2018)

FIGURE 14: Mouth clicks removed with the help of Izotope RX (Andres Nõlvak 2018)

First step of lip sync was to align the clip end or start with the original voice guide track and assess the result. Then the result could be checked on the video screen and fine tuned according to visual feedback. If there was still a problem, then the clip could be time stretched to fit. Although, if timetable permits, it is definitely better to already record the line with the right length (Tiidumaa 2018).

FIGURE 15: The clips are not in sync and there are no fades (Andres Nõlvak 2018)

After takes are cleaned up and sync, I would make sure that the clip levels were correct when compared to other takes. As the last step I added fades to make sure that the clips start and end at zero-crossing so that any down the line processing would not create unnecessary clicks or pops. When a sample does not start or end at zero-crossing, it may cause artefacts at playback (Ableton).

FIGURE 16: The clips are now aligned and time stretched to fit (Andres Nõlvak 2018)

7.3   Delivery

Recording a dub for a full feature film takes about 30-50 hours and the editing can take up to 40-50 hours (Karmin 2018). When the principal recording and editing was done, it was time to think about the delivery of the material to the production studio. However, the delivery of the project was done on multiple steps. As mentioned before, the materials for dubbing are not always sent in their final state. There can be additional changes in edit and script done by the production company. Nonetheless, certain state of the film should be sent to quality control at an agreed date even if the state is not final. This is called Fader Up. (Tiidumaa 2018).

7.3.1   Fader Up and Quality Control

For Fader Up, I as the sound engineer and the dubbing director reviewed the recorded material mixed roughly with the Music and Effects tracks. We wrote down with pen and paper any problem that we found: issues like lip-sync, missing lines, quality issues. After the review. We fixed any issues that we found. After this it was time to send the material to Quality Control. To send the material to quality control, we cleaned up the recording sessions as requested by the Track Assignment Sheets. All the irrelevant audio and video tracks needed to be removed. All the unnecessary audio needed to be deleted and the audio compacted. Luckily this is easily done in Pro Tools settings: select unused files from *Clips* menu, and click remve. Then save the project as *A New Copy* from *File* menu and include the audio files. After this, close the old project, open the new one and select all the files from the *Clips* menu and use the *Compact* command.
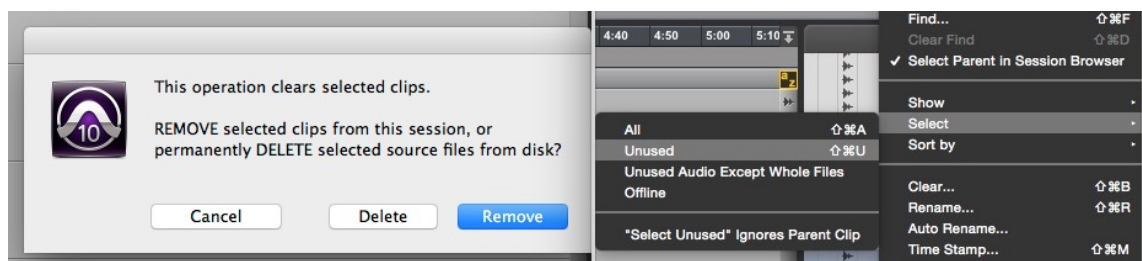

FIGURE 17: Remove unused files, after which a new copy of the project with only necessary files can be created (Andres Nõlvak 2018)

Now the new project files were as compact as possible. Then we needed to add the Head and Tail POPs with Pro Tools Signal Generator as requested in Track Assignment Sheet. This is to make sure the audio files are sync again with the video when they are connected again at the production studio. The resulting project files is clean and compact.
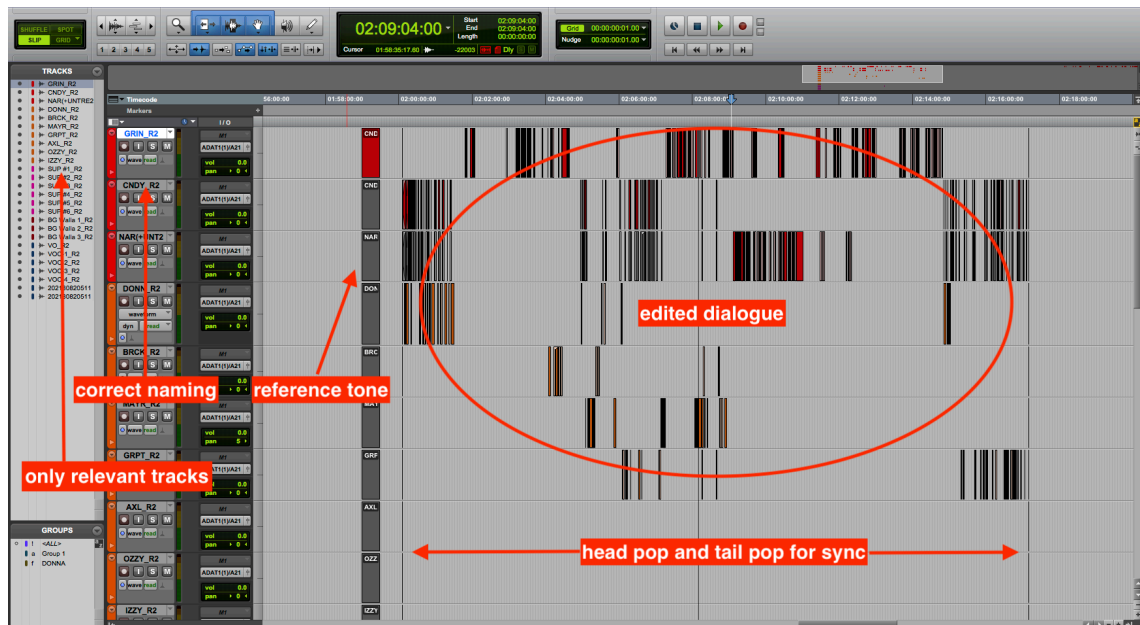

FIGURE 18: Project file prepared for sending (Andres Nõlvak 2018)

7.3.2 Pick-Ups – Sending missing lines or fixes to mixing studio

After sending the project files to the production studio, we received comments from them with additional feedback. The feedback ranged from technical issues to artistic questions like the delivery or acting of certain important lines when compared to original voice. Technical issues were questions about the sound quality: maybe the actor was too far from the microphone and the sound of the scene was inconsistent. Another issue was unwanted mouth noise and plosives that was missed in the editing and review phase. All the feedback was delivered with the relevant Timecode that specified the mentioned problematic parts. At the same time we also received *Final* version of the film with the updated material and the script.

REEL 3				
HOLDUP ROBBER	03:01:09:04	This is a holdup. All right, get your hands up, ~~behind~~ turn your back.		Tegu on rööviga. Hea küll, käed üles kähku, selja taha.
~~RACCOON~~	~~03:02:36:07~~	~~Uh-oh.~~		~~O-ou.~~

PICTURE 7: A simple change in the script – a removed line (Andres Nõlvak 2018)

Some of the needed changes could be fixed immediately with editing. Some of the issues, like missing lines, needed an actor call-back and additional recording. In case the actors were able to come back at the requested time, there was no problem, but the schedule is tight and sometimes the problems need to be fixed creatively. In case of one specific line, for example, the voice actor had already left the country and we had to use another voice actor with similar voice.
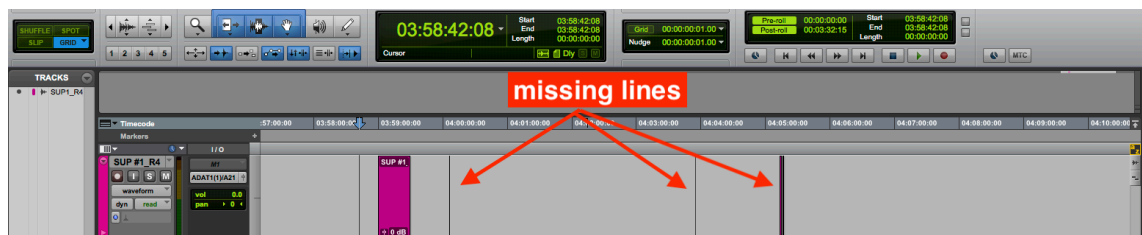

FIGURE 19: Only the requested lines need to be sent to production studio in Pick-Ups (Andres Nõlvak 2018)

These additional changes were sent to the studio not including the old project, but as separate project files with only the requested changes and fixes included. These files were also correctly formalized and named as per TAS. When the last changes were done and sent as needed there were some additional steps like sending As Rec scripts (as recorded – voice over that is actually recorded in case there were deviances from the original script) to the production studio, but from the perspective of the audio engineer, the dubbing of the film is complete.

8 CONCLUSION

Two major Hollywood films were dubbed as a part of this thesis. The first film was my first project of this kind. I went in to the project with fear of failing, but thanks to mentoring from my fellow employees. I was able to successfully finish the project. When I attended the premiere of my first film project, I realised that I had still things to learn. The second film I already tackled with more confidence since I had experience, but this does not mean I made mistakes.

First it is important to make sure that your tools are in working order, calibrated and ready to be used. The work starts by checking that you have received the necessary material for dubbing – video files, Music and Effects tracks, original dialogue and Optionals tracks if relevant. Based on the films I worked on, I can say that dubbing of a full length animated film can take roughly a month to finish from the audio engineer's perspective (not including pre-production like Trailers and Voice Tests). Recording needs to sound consistent and clean. Any unnecessary noise like plosives and mouth clicks should be removed in the editing process. It is important to prepare your project as it is requested from the production studio and as described in TAS so there will be no confusion with track and file names when you are sending your work to mixing facilities. Mixing facilities require only relevant files – alternate takes and irrelevant material should be removed from the project. Pro Tools is still a standard as Pro Tools project files were the way the materials were expected to be delivered, but other tools can also be used as per preference of the audio engineer.

Not every minute detail was discussed here, but practice is a large part of learning process. A lot of the knowledge I gained from doing mistakes. For instance, I will always check now if any additional headphones in the vocal booth are muted. I will make sure that the video offset is calibrated. I will remove too aggressive mouth noises from the dialogue track. I will try make sure that the actor gets enough breaks and does not get tired. I will try to record and edit more time efficiently. It is important to note, that not every dubbing process is similar, but practices described here are drawn from experiences on two of the biggest production studios in animation. There are some changes possible from client to client.

As mentioned here before, dubbing is not to everyone's taste and is mostly done for the purpose of children. However, when attending a film screening with my brother and my his children, I saw that the illusion was not only experienced by children. When dubbing is done professionally with sufficient attention to detail, a dubbed film can make you forget that you are not watching the film in its original language.

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APPENDICES

Appendix 1. Interview with Jette Karmin

How many major studio dubbing projects have you been part of?

As a dubbing producer for about forty. As a director for about fifteen. My first dubbing project was in 2011.

What is the purpose of dubbing?

Children. Small children cannot read subtitles. The target audience for dubbed films is usually the whole family: parents and children. Distibutors always screen some sessions in their original languages aswell for adults who dislike dubbed films.

Who pays for dubbing and who requests it?

It depends. In Estonia the dubbing is mostly requested and paid by the local distributor. But there are also cases where an international intermediary takes care of it.

How long does it take to dub a big budget animated film?

About a month. The recording takes solely 30-50 hours. Editing 30-40 hours.

What is the biggest difference between dubbing big budget and indie film?

The budget of an indie film is several times smaller. Since the budget is a lot smaller, the studio time needs to be used as efficiently as possible so a lot less takes are used and the lipsync and acting is slightly less criticial. Scheduling is the responsibility of the dubbing studio so it cannot be really said how many recording takes can be used for small or big budget films. Big budget films use star talent (well-known and experienced actors). Roughly twenty actors can voice different characters in big budget films. Indie films usually use about half of that. Minor characters and walla can be voiced by inhouse employees who are not actually actors. Editing is also more time critical in small budget films.

What about the quality control between small and big budget films?

Small studios usually come to us with an "x" amount of money and say that we need a dubbed version with that amount. We do our best. Big studios expect the work to be done on the highest level: great acting, great lipsync and so on.

How is the bidding to the project done?

It depends. We are an established dubbing studio so we do not really have to bid for specific films anymore. We have several partners. For one major well-known studio we have a contract with an intermediary who is also our quality control. For others, we get a preliminary version of the film and the script and then we use those to calculate and estimate the budget. And for third we dub the project and then provide an invoice. Sometimes a local distributor makes a choice who dubs the film.

What is discussed in Creative Call with the production company?

The feel of the film. What is the story. Who are the characters, who are the original voice actors, how do they sound and what are their specific characteristics. Accents if there are any. Then we discuss some special things in the film that we need to take into account, like "do it this way, and not like that". Some studios request a document from us that contains the biographies, photos and descriptions of the actors that we are going to nominate for the voice tests. Then we discuss the actors' suitability for their role.

When do you first see the first version of the film?

It depends. Sometimes we have already dubbed the first teaser version of the trailer and we have not even taken part of the Creative Call with the production studio. This basically means that the trailer voice actors will not necessary even be the same as in the full film. Then I will use the actors that I will believe we will use for the voice tests.

Then it is you who selects the cast for the trailer?

Yes, then it is the task of the dubbing director to select the voice talent.

How do you describe the work of dubbing director?

Well. I follow the script and provide the necessary lines to the actor in the vocal booth. I also make sure all the necessary lines are recorded. Also I fix the translations on the fly in the script. For security reasons, the translators are not allowed to take the film screeners at home, so they watch the film at the dubbing studio and then translate the script later, so the lines are not always perfect. Even if the translations are good, they sometimes do not fit the cadence or delivery so there is a lot of work with the text. I will also guide the actor and help with the delivery. Sometimes there are issues like, when in English, an answer usually ends with the intonation going up, in Estonian, a question ends with the intonation going down. I will try to make sure the dubbed version is culturally as realistic as possible. For some important characters we organize a watching sessions with the actors, so we can describe their character and motivations for them.

How are the actors paid?

Usually an hourly rate, but it depends on the actor. We also take into account the speed that the actors work.

Appendix 2. Interview with Markku Tiidumaa

How many major studio dubbing projects have you been part of?

I have worked on thirty full length animated films. First film I worked on was in 2010: Toy Story 3. Before that I worked here mainly on music, a lot of the late 90s early 2000s electronic music was recorded and produced in Orbital Vox Studios.

What was the most challenging dubbing project?

The Adventures of Tin-Tin. The film was originally motion captured and the studio required us to act out the scenes physically to get the movement, breaths and cloth sounds correct.

So what is the correct distance of an actor from the mic?

So that it sounds good.

How do you see dubbing from the perspective of audio engineer?

Short answer: Actor goes to vocal booth, watches screen and I press record /--/ Audio engineer needs to make sure that the recording meets the technical standards. Since in our studio the engineer also synchronizes, then it would be the engineer's task to notice if the recording does not synchronize. Also to inform and help in the case the wording needs to be changed or the performance needs to be changed. Also to check that every recorded line is in its intended spot and track and that the track names are correct.

How about editing?

Check synchronization again. Timestretch if needed, although lately I try to record the lines with correct length and use less timestretch. To check that there is no unwanted audio: crackles, spit bubbles, technical errors that you did not hear during recording, or text or efforts that are not in the script.

What sets a quality level needed for a sound engineer for a dubbing project?

With the necessary materials for dubbing like the video files and M&E tracks, we also get a TAS (Track Assignment Sheet) document that specifies how the Pro Tools project needs to be set up. This document specifies how a track needs to be named and where to record which line. It also specifies where to include head and tail pops and reference tones and what material to send to the mixing facilites. The quality level of editing is not really specified but it is expected that a studio is at a certain quality level that the audio and editing sounds good. We used to follow guidelines that specified that gain should not be changed during recording and that the actor should absolutely not move during recording, but I found that out that it is almost impossible to record that way. We have received some guidelines from an intermediary company, that we have a contract with when dealing with one customer, that specifies how to record and how loud to listen back the recorded material and so on. Recording consistency is important since the mixing facilities use templates – they mix a lot of different languages at their facilities.

How did you deal with plosives and mouth clicks before iZotope RX?

Manually. EQ for plosives. Cut for mouth clicks. Pencil tool for removing sharp K's.

How did this kind of editing of plosives and mouth clicks become the norm? How to explain it?

They sound bad.

But how do you know how to set the volumes for recorded clips in editing?

You have to think with the mindset of a mixer. When you yourself mix, you route the dialogue channels to one buss channel and adjust the volume with automation from there. So good editing from that perspective means that you do not have to go fixing clips gains during mixing.

I have seen in videos that two microphones are sometimes used for dubbing. Why do not we do that?

I have actually tried it and found out to be unnecessary. Also, since the TAS document specifies that audio files need to be mono, so we keep it that way (Note: He used stereo channel for editing purposes, one mic on left and other on the right cannel and then panned to that side to which mic to be used).

Why would you use compressor in dubbing?

Without compressor you have to ride the gain too much during recording. It would be difficult to record a scene with high dynamics. It would be just too fast to change the gain level or maybe the gain crackles or whatever.

How do you think TAS has become a standard? Every major studio uses TAS.

I think it is just a smart way of doing things. I mean, you can create your own studio and obviously you want different stages follow the same naming convention, same settings and so everything would be organized exactly the same. It makes things more efficient.

I have seen you use a lot of the efforts and grunts from optional tracks (Optionals are tracks that contain efforts and vocalizations from the original voice that are non-verbal)? Is it because of acting?

It depends. In the past it has been the question of economical thinking: why would I ask the actor to perform screams and efforts, which tire the actor, and in the end it sounds almost the same as the original voice? In this case I would use the original voice from optionals. But lately I have asked the actor to perform all the efforts, grunts and vocalizations. Some clients require the dubbing actor to provide all the vocalization as optionals are not even provided. I am not sure, but I think it relates to the original voice artist contracts. But I have experiences where I have used original efforts too liberally and it has sounded weird in the theater – sounded too different from the dubbing actor.

How do you know, what is the task of the mixing engineer and what is the editing task for you?

It is usually specified in the TAS eg. files should be unconsolidated with no automation. Modest compression can be used during recording, otherwise it would be difficult to record. Actors have a huge dynamic range to be filled during recording, from whispers to screaming efforts. In my studio, we do not really use a purpose built pre-amplifier for the microphone, the microphone is directly connected to RME audio interface. I had an experience where mixing engineer sent me a message afterwards saying that he listened from the sound that we do not have a proper pre-amp so he EQ'd accordingly (attenuated a bit of 2,5 KHz). So experience is a great thing.

We checked that on your last movie you recorded about 40 hours. How much do you use on editing whenc compared to that?

I guess about the same. With certain clients, the film is enhanced during actual dubbing production so there can be changes in the script, animation and sound (The different versions are called preliminaries: P1, P2, P3 and so on until Final version). On the last film there were a lot of changes from the preliminary version to final version so editing took more time.

Appendix 3. Interview with Tanel Vettik

From your perspective, what is the reason behind commissioning dubbing from a dubbing studio?

In general, because of the target group. The main target group for animated films are children who cannot read subtitles. From technical perspective there are many facets: We look at the quality of the work, the price, the smoothness of co-operation. Big studios, for example, request certain security certificates from dubbing studios.

Usually, non-dubbed original language screenings are also done in the cinema in tandem with dubbed films. What is the percentage in sales for those films?

It varies from film to film, but overall, the amount is marginal. Usually the original voice screenings are done only a couple of times and even that only in the bigger cinemas for the pleasure of movie fans.

Is the celebrity status of a voice actor important?

There are several factors for this (what is the quality of the animated film) and it is difficult to measure this in real life situations. However I personally think it is important and is an important part of marketing the movie (especially if you use the actor in marketing the movie).

Appendix 4. Trailers of the project films

https://www.youtube.com/watch?v=VOw-x_3qpCA
https://www.youtube.com/watch?v=HXrC34i65DM