

Master's Thesis for Jeppe Hjersing Knudsen & Martin Geertsen
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Development Of The TonePrint Community: A case study in user involvement

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Contents

1	Introduction	5
1.1	What should be in the introduction	5
1.2	The TonePrint concept	6
2	TonePrint	7
2.1	What is TonePrint?	7
2.2	TonePrint software	8

Chapter 1

Introduction

The following master's thesis takes its starting point in the TonePrint concept from TC Electronic (from here on referred to as *TC*). Its reveal in 2011 opened a new playground for musicians and tone tweakers, making effect editing possible from the users smartphone. Until this point, TC was already a worldwide known manufacturer of effect pedals for guitarists, originally formed in the early 1970's by Kim and John Rishøj in Aarhus, Denmark. With this as the baseline for the thesis, the focus will be on the future for this concept, starting with a general description of effect units and the capabilities of TonePrints.

1.1 The TonePrint Concept

Effect pedals in general are well known units for guitarists and bassists alike, spanning multiple music genres. The pedal works by taking the input signal from the guitar and changing it as to the user's tweaking. Tweaking can be of different parameters depending on the effect type, and when playing, the user activates these changes by a push of a single button on the pedal. An example of a simple guitar effect pedal is displayed on Figure 2.1, where the adjustable parameters on it consists of *Dwell*, *Mix*, and *Tone*. Each of these are accessed and tweaked with individual knobs on the unit, which gives the user a limited range of ways to change the sound.

With this limitation as a motivation, TC created the TonePrint concept, enabling users to tweak the sound of effects beyond the parameters on the pedals. Using the TonePrint application, the users have a vast selection of custom presets with further parameters available for tweaking. These presets are what the term *TonePrint* covers and they are either created in collaboration with professional musicians or by the common user. In order to distinguish these from each other, they are referred to as *Artist TonePrints* and *User TonePrints* respectively. After selecting one for the effect pedal in question, the user can make any desired tweaking or transfer it directly to the pedal with the option of altering it even more on the physical knobs (**PDF:TonePrintAnalyse**). TC has collaborated with multiple guitarists and bassists, creating TonePrints for effect pedals used by the artists themselves. After the creators are satisfied with their

TonePrints, they are uploaded to the TonePrint library in the application where any users of the same effect pedal can download the TonePrint and as such match the sound of their favourite artist. For User TonePrints the overall concept is the same. They differ in the fact that the creator isn't a famous guitarist, but the TonePrint is still made using the application and can be transferred directly to its effect pedal. However, when it comes to sharing these User TonePrint with friends and other aspiring guitarist, a platform for this purpose doesn't exist yet.



Figure 1.1: This figure shows a Drip spring reverb effect pedal by TC Electronics [https://www.tcelectronic.com/Categories/Tcelectronic/Guitar/Stompboxes/DRIP-SPRING-REVERB/p/POCQ2#googtrans\(en|en\)](https://www.tcelectronic.com/Categories/Tcelectronic/Guitar/Stompboxes/DRIP-SPRING-REVERB/p/POCQ2#googtrans(en|en)).

1.1.1 The TonePrint Software

As previously stated, the exploring of TonePrints start with the TonePrint application available for smartphones and tablets. However, the software is also available for PC and MAC, and the reason for this distinction lies in the difference of how a TonePrint is transferred to its respective pedal. For PC and MAC the user is required to use a cable from the computer to the pedal, but through the tablet and smartphone application, the user also have the option of simply beaming it directly to the pedal. whatever the platform, however, when opening the software the user is introduced to a list selection of different effect pedals, each holding a vast number of TonePrints created by famous guitarists. After selecting an effect pedal from this list, the user is then presented a new list selection of the many guitarist who have created TonePrints for this pedal. When selecting one of the guitarists, and depending on whether the guitarist have created more TonePrints for the same pedal, the user is then presented a bigger view of this specific TonePrint with a description of it and its creator. An example of this is displayed on ???. Depending on the users' motivation when opening the application first time, they can also choose to browse by artist instead of pedal, if their starting point is to find out what it takes to sound like their favourite artist.

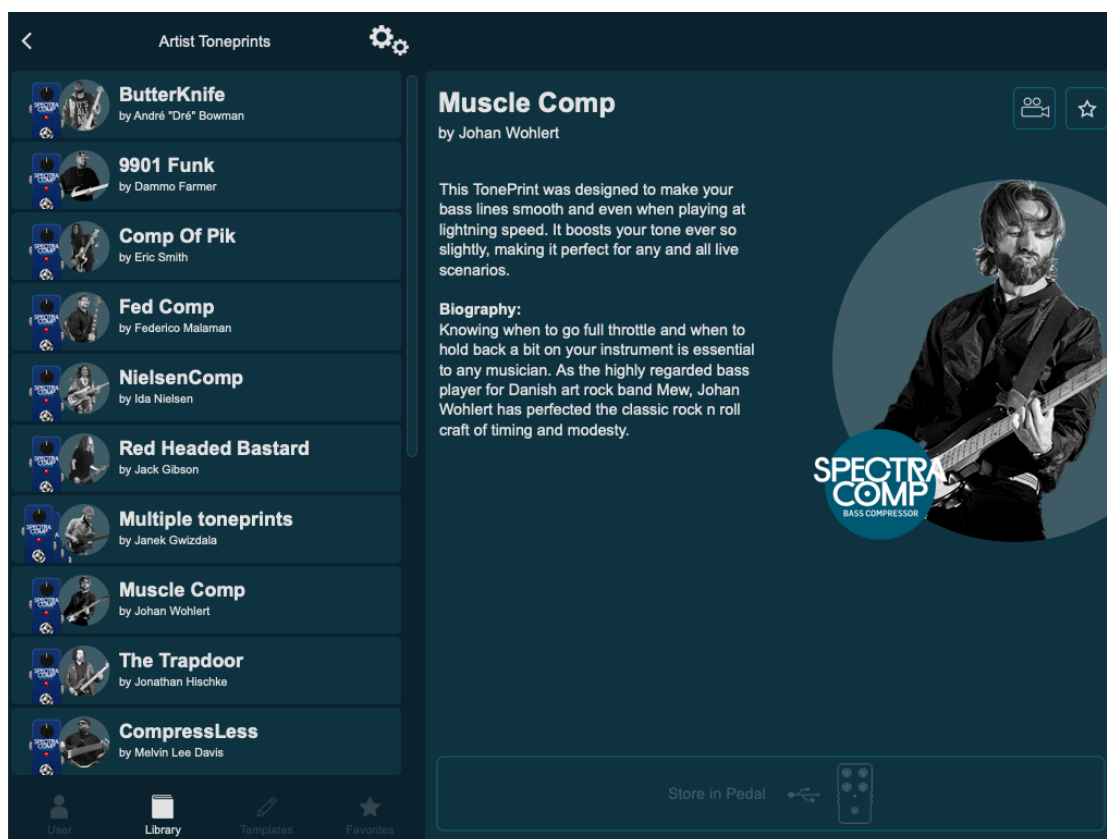


Figure 1.2: The view in the TonePrint application after selecting an effect pedal and a TonePrint. This example displays a TonePrint created by Johan Wohler of the danish rock band *Mew*.

- Man kan overføre med kabel eller beaming¹
- If a user should attempt to transfer a TonePrint of an effect pedal to a completely different unit, it simply wouldn't work.
- Et billede af appen, men hvad skal det billede helt præcist vise? Hvor i appen skal man være?²
- Brugeren kan også starte med at browse ud fra guitarist i stedet for deal type => Det er ikke til at sige, hvad brugerens motivation er.

FiXme Note!

FiXme Note!

¹FiXme Note: Der skal laves henvisning til appen i sig selv

²FiXme Note: Indsæt billede af appen

Chapter 2

TonePrint

The purpose of this chapter is to give the reader a understanding of what the TonePrint concept is and how it works. In this cahpter there will be a description of what a TonePrint is and how it is created with TC Electronics software. The information in this chapter could be essential to understand the later thoughts and considerations, regarding the development of a TonePrint community.

2.1 What is TonePrint?

Effect pedals is a normal piece of equipment used by guitarists and bassists, in many different music genres. An effect pedal works by changing the input signal from the instrument, accordingly to the effect type. This gives the musician the ability to change the sound of his or hers instrument, with a simple push on a button. By using normal effect pedals, you're normally limited in the sense of only being able to adjust a small number of parameters on physical knobs on the pedal. A simple guitar pedal is shown on Figure 2.1. On this example there is three separately adjustable parameters on the pedal (Dwell, Mix and Tone), which each have its own knob. This limits the range of different sounds, which a pedal enables the user to create. In 2011 TC Electronics wanted to get rid of this limitation so they created the TonePrint concept.

A Pedal containing the TonePrint technology enables the users to change the sound of the pedal, beyond the parameters presented by the physical knobs. Using the TonePrint application the users can transfer a range of different premade variations of the effect, directly to the pedal. These premade variations is called TonePrints. In collaboration with multiple famous guitarists and bas players have TC Electronics create TonePrints for a number of pedals used by the artists them selves (**PDF:TonePrintAnalyse**). The TonePrints are created by tweaking all the parameters which are able for the given pedal, which isn't just the ones that are represented by the physical knobs. When the creators of the TonePrint is satisfied with the result is the TonePrint uploaded to the TonePrint library, enabling every one with a pedal of the same type the TonePrint was designed fore, to download the TonePrint and use the effect to sound just like the artist whom created it. The TonePrints created together with famous musicians will from now on be

referred to as "**Artist TonePrints**".

Due to requests from the TonePrint users did TC Electronic in ?? launch what we will refer to as "**User TonePrints**". The main difference between Artist- and User TonePrints is the creator of the TonePrint. A User TonePrint is a TonePrint which is created by a user, using the either the TonePrint smartphone application or the computer software "TonePrint Editor"(Editor manual som kilde). With User TonePrints does the user of a TonePrint pedal have he opportunity to alter all the different parameters for the effect, making the sound just as he or she desires.(Det skal måske rettes så det ikke ser ud til at Appen og editoren er noget forskelligt, for det tror jeg ikke det er.)



Figure 2.1: This figure shows a Drip spring reverb effect pedal by TC Electronics
[https://www.tcelectronic.com/Categories/Tcelectronic/Guitar/Stompboxes/DRIP-SPRING-REVERB/p/POCQ2#googtrans\(en|en\)](https://www.tcelectronic.com/Categories/Tcelectronic/Guitar/Stompboxes/DRIP-SPRING-REVERB/p/POCQ2#googtrans(en|en)).

2.2 TonePrint software

As mentioned in section 2.1 is a key item for the TonePrint concept, the software in either the smartphone app or the computer software. It is from these softwares the users are able to brows the different Artist TonePrints and create their own User TonePrints. When wanting to use a Artist TonePrint, the user have different options. Either the user can chose to brows the library by the artist whom have co-created the TonePrint, or by brows by the different TonePrint pedals, as shown on Figure 2.2. Both ways the users is still given the information of which artist and pedal type. When a user has found the desired Artist TonePrint there is two ways of transferring it to the pedal. This can be done by either using a cable connection between the computer or smartphone and the pedal. The other way is to send a sound signal from the TonePrint app through the pickups on the instrument to the pedal, this is called "beaming".



Figure 2.2: Here its illustrated how a user can select a Artist TonePrint by browsing the TonePrint Pedals.

when wanting to create a User TonePrint the user can either use the smartpone app or the computer software, which doesn't differ in capability, only the interface. Firstly the user have to connect the computer or phone with the pedal with a cable, whereafter the editor features will appear. The users than has the option to change the parameters with the help of sliders and buttons on the interface. The user can also assign other parameters to the buttons on the pedal, than the ones that is the default.

- What is TonePrint
 - How do regular pedals work?
 - What is special about TonePrint?
 - What is Artist TonePrint?
 - What is User TonePrint and what does it mean.
- The TonePrint editor
 - How does the Editor work (Just the basic principles)?
 - The use of the App (Beaming, editing)
- Shall we mention the lack of platform?