## **Develop**

Chen Sokolovsky

# ClickTrack Manual

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### Contents

#### 0. Introduction:

- 0.1 How to read this guide
- 0.2 About the app
- 0.3 what's new on this version?

#### 1. Basic operation:

- 1.1 Start
- 1.2 Stop
- 1.3 Sound & troubleshooting

#### 2. Segments basics:

- 2.1 What is a segment?
- 2.2 Adding a segment
- 2.3 Navigation through segments
- 2.4 Deleting a segment
- 2.5 Parameters

#### 3. Editing segments parameters:

- 3.1 Set a constant tempo
- 3.2 Set a time signature

- 3.3 Set the number of bars (number of measures)
- 3.4 Set a gradual tempo change
- 3.5 Set an immediate tempo change
- 3.6 Set slopes
- 3.7 Pickup measure

#### 4. The Graph view:

- 4.1 Selected segment
- 4.2 Minimum tempo
- 4.3 Maximum tempo
- 4.4 Median tempo
- 4.5 Current tempo
- 4.6 Segment Measures count
- 4.7 Playhead

#### 5. My tracks view:

- 5.1 Saving a track
- 5.2 Loading a track
- 5.3 Deleting a track

#### 6. Settings:

- 6.1 Start playing location
- 6.2 changing click sounds

#### 7.Help section:

7.1 Quick guide

- 7.2 Video tutorial
- 7.3 User guide
- 7.4 Tell a friend
- 7.5 Rate the app

#### 0. Introduction

#### 0.1 How to read this guide

ClickTrack was invented and programmed by musicians and for musicians (and dancers). Therefore, the app and its guide are using music related terminology. If you find yourself not fully understanding the meaning of the following terms, please take a minute to read about them on wikipedia, or consult a musician or your music teacher.

Terms: Bpm, tempo, time signature, bar (or measure), bear, downbeat pickup measure.

To get the most out of this guide, it is recommended to "ignore" the graph view in the provided examples until you reach section 4. The information on the black buttons (aka Parameters, as described on section 2.5) in the examples should be observed and understood regardless of the visual representation of the track.

#### 0.2 About the app

What **can** you do with ClickTrack?

- Create and play a metronome sound along a programmable & flexible tempo changing track.
- Save up to 30 tracks
- Change the click sounds
- Start playing the track from the selected segment

What can't you do with ClickTrack?

- Play more than 600 bars
- Have more than 10 different segments (refer to section 2.1 to read about segments)
- Export your track as audio
- Move saved tracks between devices
- Backup your tracks on the cloud
- Undo an action

Click track is a tab bar app with 4 tabs:

- Track Main playing and editing screen. Described in sections 1-4.
- My Tracks A list of tracks where you can save and load. Described in section 5.
- Settings General playing settings. Described in section 6.
- Help Help resources about this app. Described in section 7.

Additionally, Click Track does not collect any data about you, and never requests or tries to access anything on your device like contacts, camera, microphone etc... All it does is simply play clicks over a time grid.

The idea for click track app came from my colleague and drummer Patrick Fitzgibbon.

#### 0.3 What's new in this version?

Version 3.0 introduces many changes from the previous version. While the previous version introduced a new audio engine that improved tempo inaccuracies, this version brings with it a new set of screens and settings.

- Tracks saving and loading
- Play the track from the middle starting at any section
- Change the click sounds of both down and up beats
- Extended help guides, tutorials and troubleshooting section

## 1. Basic operation

When you first open the app, you should be seeing this screen:



#### 1.1 Start

First thing you probably ought to be doing, is test if you can get the metronome sound to play.

To do that tap the "Go" Button at the bottom of the panel. Tapping "Go" will play your track from the start, or, from the selected segment. This depends on your settings (see section 6.1)



If you start hearing click sounds, that is a good sign. If not, please refer to section 1.3 below.

Note that the button title just changed to "Stop". If you let the track play all the way through, the metronome will stop automatically and the button title will be set to "Go".

#### 1.2 Stop

When you wish to stop playing the metronome, just tap "Stop".



#### 1.3 Sound & troubleshooting

The sounds you are hearing have two different tones. One for the downbeat (the beginning of each measure) and a different tone for the other beats of the measure. These can be replaced or changed in the settings screen.

If you did not hear any sound at all there could be a few reasons:

- Your device's volume is set all the way down
- You are currently on Silent mode (the little switch at the side panel of your iPhone/iPad is turned red)
- Your sound is mounted to another device, like a bluetooth speaker or earphones, and you
  are not listening to them or they are turned off.

If you are still not getting any click sounds, a short check that you can perform is open another app like youtube, spotify, podcast or itunes, and try playing any sounds through those. If these apps manage to play sounds, but ClickTrack is still silent, please contact the support email.

## 2. Segments basics

#### 2.1 What is a segment?

A segment is a collection of bars that have configurable parameters. You may think of it as a section of a song, or a tempo "event" such as change of time signature, acceleration (Accelerando) or slowing down (Ritardando). For example, a segment could be 10 measures long, with a constant tempo of 120 bpm using 4/4 time signature.

Here are some other examples:

A single measure of 5/4 time signature with bpm value of 200.

A section that starts at 100 bpm and accelerates to 200 bpm across 10 bars, using 3:4 time signature.

As you can see, each section has one (and only one) time signature, it has X number of bars, which are between 1 to 60, and tempo(s). Tempos could be constant, or changing. The tempo value/change of a section is represented by two values: Start Tempo (from tempo) and End Tempo (to tempo).

If the tempo is constant throughout the segment, the Start Tempo and End Tempo are the same. If the section represents a gradual tempo change, the Start Tempo and End Tempo are different.

There is always one, and only one, selected segment at a time. The selected segment is the one you wish to edit in order to create your track, and/or the one you wish to view its current parameters values. The segments are marked by indexes. See section 2.3 to learn more about the selected segments and how to navigate between segments.

#### 2.2 Adding a segment

When you first launch the app, your track contains 1 segment, of constant tempo: 120. To add more segments, just tap the "Add" button. You can have up to 10 segments in your click track. You must have at least one segment in your track. The add button will always create the new segment right after the currently selected segment. The initial parameters (section 2.5) of the newly created segment will depend on the previous segment.



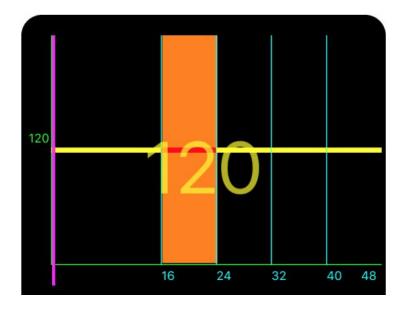
#### 2.3 Navigation through segments

There are a few ways to navigate through the segments of your track. Each segment has an index from 1 to 10. You can tell the current selected segment by looking at the segment button:



In this example, the selected segment is segment number 2.

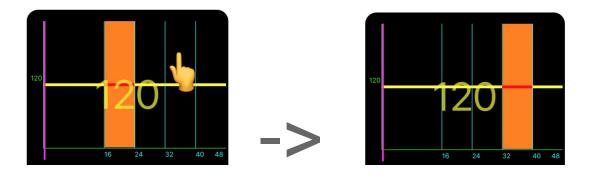
Another way to find your selected segment is by looking at the graph, and counting the segments between the vertical cyan lines. The segment colored in Orange is the selected segment.



In this example, the selected segment is segment number 2 (out of 5 segments in total)

Now that you can tell which segment you are currently on, you can start selecting other segments. There are 3 ways to do that:

1. Tap on the graph on the segment you wish to select.



2. Tap the segment button and type the segment index you wish to select, then tap OK



3. Use the "Next" and "Previous" buttons to move up or down the segments



Once you've reached the desired segment, you can look at the parameter buttons to read the current parameters (the index, the length in bars, the time signature, the start and end tempos, and the gradient). See section 2.5 for more info on Parameters.

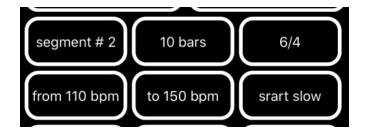
### 2.4 Deleting a segment

To remove a segment, select it and tap "Delete". You can not delete the last remaining segment, since a track must have at least one segment.



#### 2.5 Parameters

The following parameter buttons hold the values of the selected segment:



In this example the selected segment is at index 2. it is 10 bars long, with a time signature of 6/4. It starts at 110 bpm and ends at 150 bpm. the gradient is set to "start slow"

You can tap on the buttons to change the parameters. Tapping the segment index will just select a different segment. Tapping the other 5 parameters buttons will change the parameters of the selected (current) segment.

Here are the parameters and possible values:

Bars - A segment can have between 1 and 60 bars (measures), in whole numbers.

**Time signature** - A segment can have a single time signature. Possible values: 2:4, 3:4, 4:4, 5:4, 6:4, 7:4. If you need 3:8s, you can use 3:4 and double the tempo. If you need 12:8, you can use 6:4 with double the tempo (or 4:4 with triplets in your head) and double the bars number. If you need time signatures such as 11:8, 13:8, 17:8 and such, I am afraid it is impossible with clickTrack.

From Tempo - The tempo to start with at the downbeat of the first measure of the segment.

**To Tempo** - The tempo to be reached at the last quarter note of the segment.

Both tempos values must be between 40 and 350 bpm in whole numbers.

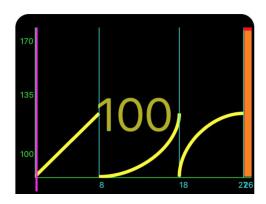
**Gradient** - The slope of a tempo change. Note that this parameter is relevant only if the From Tempo and To Tempo parameters are different. The possible values are:

Linear - the tempo will change at a constant rate (up or down)

Start Slow - the tempo will change slowly at first then more rapidly the closer it gets to the End Tempo

Start Fast - the tempo will change rapidly first, then the changes will get minor as it gets to the End Tempo.

Section 3.6 will explain this in a little more details.



See the curves, from left to right: Linear, Start Slow, Start Fast.

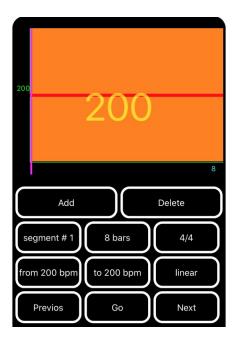
## 3. Editing segments parameters

In this section we will look at segments and track examples, and how to create them.

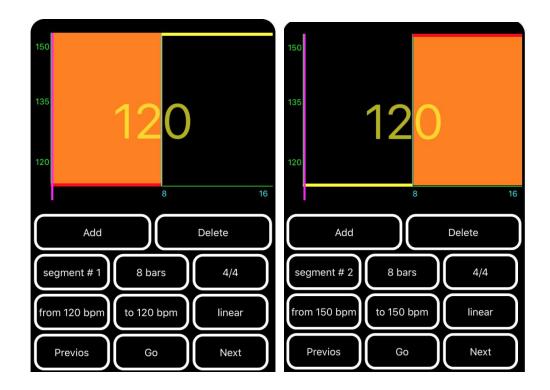
### 3.1 Set a constant tempo

If you just want a constant tempo for a segment, you just select that segment, and tap the "From" button. This will prompt a dialog where you can type your tempo (between 40 and 280 bpm). Notice that the "To" tempo will adjust accordingly, since constant tempo is a very common use. In this first example, I set the single segment to play a constant tempo of 200

bpm. (segment #1 has 8 bars, at 4/4 time, with a constant tempo of 200). Look at the buttons and verify that you can locate all these parameters.



Another common use is abrupt tempo change. For example, suppose I would like to practice playing 8 bars of 120 bpm and then change to 150 bpm. Here is how my 2 segments will look like:



The needed steps to get to this were:

- 1) Tap "Delete" until you are left with only one section
- 2) Tap From and set it to 120
- 3) Tap Add to create another segment (Now the new segment is selected)
- 4) Tap From and set it to 150

We end up with a track as follows:

Segment #1 is 8 bars long, with 4/4 time and a constant tempo of 120 (from 120 to 120)

Segment #2 is 8 bars long with 4/4 time and a constant tempo of 150 (from 150 to 150)

Note that if you already played with the app, your first section might not be 8 bars long.

#### 3.2 Set a time signature

If you wish to change the time signature of a segment, you can tap on the time signature button, which usually has a title of "X/4", while X could be a number between 2-7.

When you tap that button, drag the scroll to select from the available time signatures.

In this first example, I am just setting the metronome to have a constant tempo of 120 with a time signature of 5/4



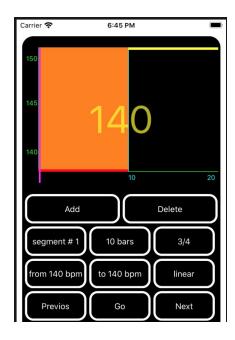


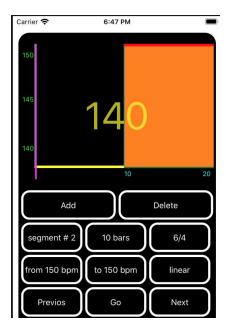
Notice the 5/4 button on the right, just below the "Delete" button

In the following second example, I will create two segments.

First segment: 10 bars of constant 140 bpm with 3:4 time signature.

Second segment: 10 bars of constant 150 bpm with 6:4 time signature.

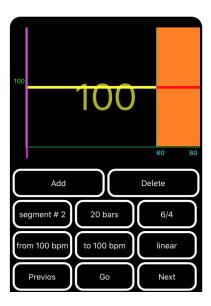




## 3.3 Set the number of bars (number of measures)

Setting the number of bars of a segment is done by tapping on the "X bars" button, where X is a number between 1 and 60, and typing the new number in the pop up dialog.

If you wish to play the metronome in a constant tempo of more than 60 bars, you can just create another segment with the same tempo right after it. In the following example I am creating two segments that total to 80 measures of constant 100 bpm. Note that making two segments of 40 bars each will have the same audible results.



#### 3.4 Set a gradual tempo change

Tempos can change abruptly, or accelerate/decelerate gradually. Sections 3.4, 3.5 and 3.6 discuss and demonstrate these changes.

Any section that starts and ends with a different tempo means that the change is occurring over time, or in our case, across a few bars.

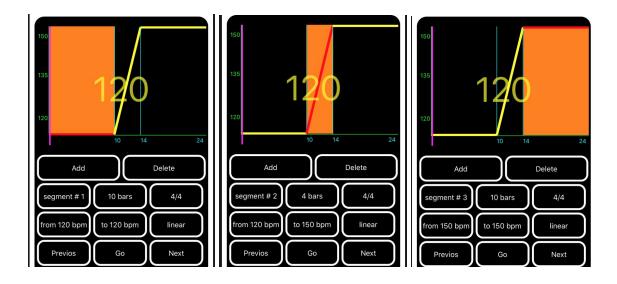
In this first example I will create a track that starts at a constant tempo of 120 bpm for 10 bars, then accelerates to 150 bpm across 4 bars, then stays at 150 bpm for 10 more bars.

This will require 3 sections:

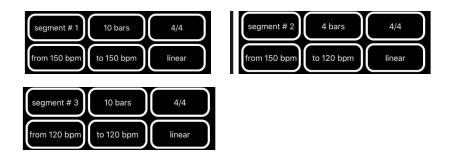
section #1 - from 120 bpm to 120 bpm for 10 bars

section #2 - from 120 bpm to 150 bpm for 4 bars

section #3 - from 150 bpm to 150 bpm for 10 bars



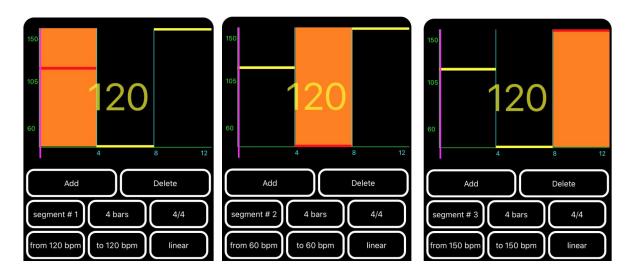
Here is the same example, however, we start at tempo of 150 bpm (10 bars) and slow down across 4 bars to 120 bpm and stay at 120 (for 10 bars more)



#### 3.5 Set an immediate tempo change

Section 3.1 already demonstrated abrupt tempo change, here is another example:

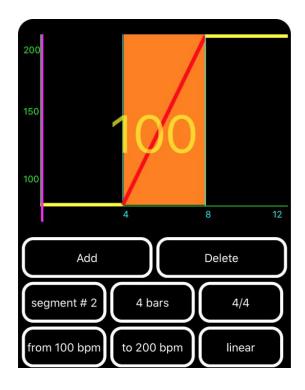
The following track will play 4 bars of 120 bpm, 4 bars of 60 bpm, then 4 bars of 150 bpm. All of these tempo changes will be abrupt.



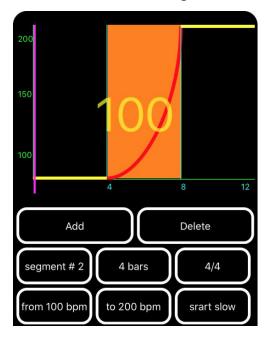
#### 3.6 Set slopes

Gradual tempo changes happen over time. However, you may want to control the rate of the tempo change across that time. In this part of the tutorial the visual graph can demonstrate the difference.

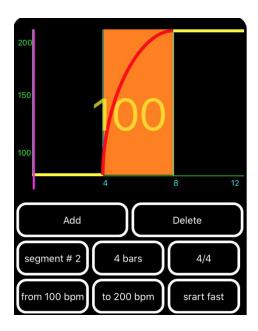
Suppose we want to change the tempo from 100 to 200 across 10 bars. If the rate of change is constant (or linear) then the bpm will increase in 10 bpm per bar. (110 bpm by the end of the first bar, 120 after the 2nd bar etc...)



However, you could set the change rate to start slowly and then increase over the segment. In our example it will mean that after 1 measure the tempo will be 103 (or so) then after two measures 108, then after 3 measures 115, and so on, and the major tempo leaps will occur closer to the end of the segment. To select this curve choose the "start slow" option.



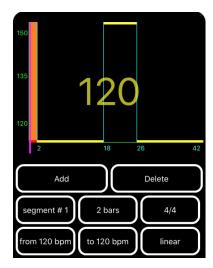
The opposite of this curve performs the big tempo leaps at the beginning of the segment and the small changes will take place closer to the end of the segment. Select "Start fast" to apply this option.



#### 3.7 Pickup measure

Usually, when playing with a metronome, you might want to get a countdown before you start the actual song. Depending on the tempo, bands and conductors tend to count between 1 and 2 measures out loud ("One...Two... One, Two, Three, Four"). To add a pickup measure to your track you can use the first segment. Set it to be 2 measures long and set the tempo to be the same as the "first" tempo of your track, which will in fact start from section number 2. (Example follows)

Another option is to set the length of your first section to be 2 bars longer, and treat the first 2 bars as pickup (start playing your song from bar 3). This option, however, can only work well if your track starts with a constant tempo segment.

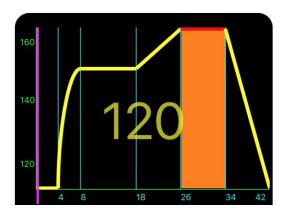


## 4. The Graph view

As mentioned in the beginning of this guide, all of the segments' information (parameters) appears on the buttons texts, and there is no real need to look at the graph. However, the graph view can show you a board look at your entire track, and while playing, shows you the current location on the track.

### 4.1 Selected segment

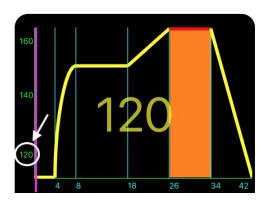
As we have seen before, the selected segment is represented by the orange background.



This track has 6 segments, and the selected segment is #5

#### 4.2 Minimum tempo

The number on the bottom left represents the lowest tempo of the entire track.



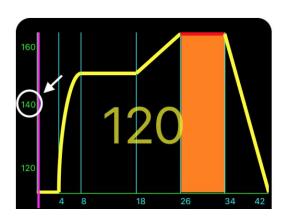
### 4.3 Maximum tempo

Similarly, the number on the top left represents the highest tempo of the entire track



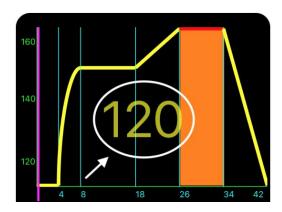
### 4.4 Median tempo

The number of the middle left represents the average between the minimum and maximum tempos of the entire track



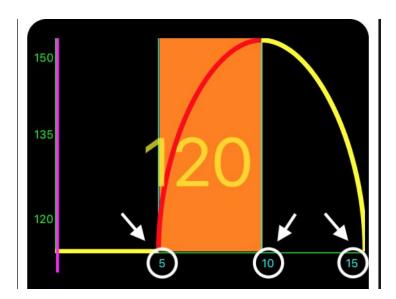
#### 4.5 Current tempo

The large number in the middle of the graph represents the current tempo. This is the only number that changes as the metronome is playing and represents the tempo as the track progresses. If a segment has constant tempo, it will keep constant value. If a segment has gradual tempo change it will show the current tempo, refreshing at a single beat rate.



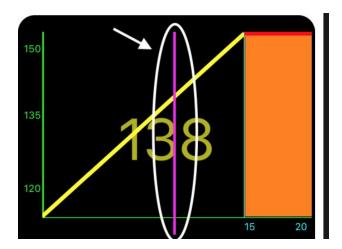
#### 4.6 Segment Measures count

The numbers on the bottom represent the measures count at the end of each segment. In this example there are 3 segments in the track, and each segment is 5 measures long. The rightmost number will therefore represent the total measures of the entire track.



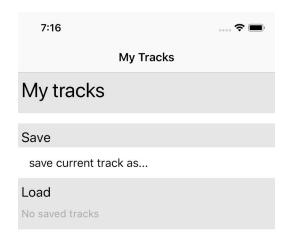
### 4.7 Playhead

The purple vertical line represents the playhead, which is the current location while the track is playing. Just like the current tempo value, the location is refreshed on each beat. You can not change the location or interact with the playhead. Each time you stop the track the playhead will jump to the beginning of the track.



## 5. My tracks view

Once you set your track, you can save it to memory. You can save up to 30 tracks. Track names must be letters, numbers, space and underscore only.

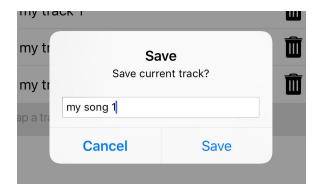




### 5.1 Saving a track

The current track can be saved for later use.

Once you tap "save current track as" you will be asked to give the track a name, with the limitations mentioned above. If the name exists, you will be asked if you wish to overwrite it. If one of the limitations occurred, an alert will be prompt.



If save was successful, the track name will be added to the list of tracks.

Note that saving a track also saves the currently selected segment selection.

#### 5.2 Loading a track

Once you have one or more tracks saved, you may load one of them into the track view. This is done by tapping the track's name on the list. Obviously, if your current track is not saved, loading a track will remove the current track information. If you make some changes to the track that you wish to save, you can save the track and the track's name will be autofilled for you.

#### 5.3 Deleting a track

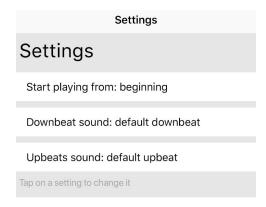
If you maxed out the allowed tracks amount, or wish to delete a track, tap the trash can icon next to the track and confirm.



Renaming a track is possible by loading the track, saving to a new name and then deleting the old name.

## 6. Settings

This screen lets you change global app settings. The changes you make here are not saved with the track. Instead they apply to every track you save or load, or, the track you are currently playing/editing. The setting screen shows you a list of settings, and the currently selected option. Tapping on an option will reveal a list of all the possible options with a check sign next to the selected option.

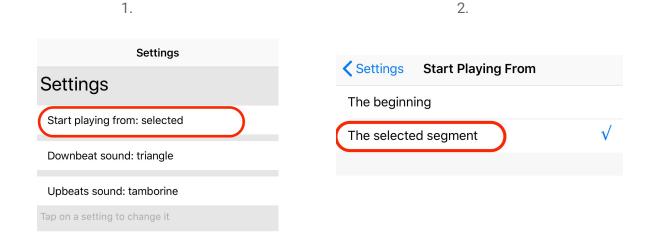




#### 6.1 Start playing location

The current track can be played from the beginning or from the selected segment. The default setting is to play from the beginning. For editing purposes, it might be useful to start playing from the section you are working on and trying to fine tune. To start playing from the selected segment go to "Settings" on the bottom bar, then select "Strat Playing from", and select "The selected segment". Once this option is set, whenever you tap "Go" on the main track screen, the

track will start playing from the selected segment. This is a global setting that applies to all loaded tracks and the current track.

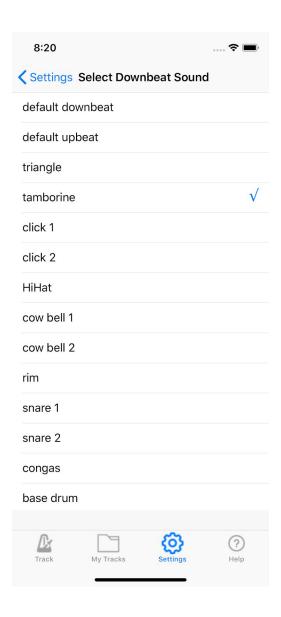


#### 6.2 Changing Click Sounds

There are two click sounds to each measure (bar). The Downbeat is the first beat of every bar, and the upbeats are the rest of the beats. For example, a 4/4 bar will play one downbeat sound and 3 upbeat sounds.

You can change the default sound to other sounds from the provided list. Selecting a sound is a global setting that is not saved as part of the track, and applies to any loaded or current track.

Tapping the sound name will play in order to help you preview it. The playing sound will be the one that is currently checked. Note that you may select the same sound for upbeat and downbeats which means you will not hear a different sound when at the beginning of each bar.



## 7. Help Section:

The help section contains multiple resources to help you learn how to use Click Track app, or troubleshoot any issues. It also contains links to recommend the app to a friend and rate the app on the app store.

#### 7.1 Quick Guide

For a quick start and explanation about each button you can refer to the quick guide. It is intended for fast overview or quick reminder about what each button does.

#### 7.2 Video Tutorial

Some people prefer to read, others prefer a visual guide. This option links to an online video demonstration of the app.

#### 7.3 User Guide

This is a link to the guide you are reading at this very moment.

#### 7.4 Tell a Friend

This button contains a link to the app store, along with a message that you can email, text, or share on any IM or social media you please. If you are enjoying Click Track and find it useful, please recommend it to a friend. This will help me improve and create future versions and add features.

### 7.5 Rate the app

Another way to help Click Track grow is rating the app with 5 stars on the app store. Please do so if you are happy with the app. You can always write your thoughts and ideas, or if you have any issues, and contact me. A lot of the features of this version came from email suggestions.