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garageband.doc

REVISION 2



A hackRspace Documentation.
BUSCH CAMPUS: HILL CENTER 254

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Remember! This is a guide that's not fully developed! If you see anything that needs to be added or a typo/mistake, tell us!

GETTING STARTED

p(3-5)

Just some intro; it's a good place to look here if you're just starting out and you have no clue where and how to start.

New project

p(4-5)

Same as the latter! Also if there's no sound coming on from what you're playing and you're sure that the monitor is turned on, maybe you need to skim here to check your default inputs/outputs.

KNOWING WHAT'S WHAT

UI intro

If there's too many or not enough (as in they were there last time, but now they aren't) buttons and panels that need to be clarified, here's a good place to start.

Cursors

So many different mouse icons on GarageBand..... Look here!

Parts of the Track (on the TrackBoard)

A quick brush-up on what all the colors and items on the tracks placed on the TrackBoard mean.

TRACKS

Adding a new track? Here's a couple:

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If you're trying to see how MIDI's (musical keyboards/pianos that hookup to your computer and make sounds) work, here's where you want to start.

Music matrix

Look here to see how you would want to input musical notes without the use of actual instruments and just your computer keyboard/mouse!

Audio instrument

Have an instrument or a mic? Look here and you won't get too disappointed. Also here you can see how to add all those crazy pedalboard effects without spending a dime on an actual pedal for all you poor guitarists/bassists.

Microphone

Guitar & Bass

Drums

GarageBand's very own drummer that is all fully customizable. Also could be known as 'Smart Drummer' as well.

RECORDING & PLAYBACK

Monitor

No sound playing when you're recording or not? Look here!

Looping

If you're ripping a solo or need a part to be repeated so you can record over it, look here for some helpful tips.

EDITING YOUR TRACKS

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Need to have timing of your whole track centered upon one track that seems to be on time? Look here!

Flex Time

Work on some notes that need to be moved elsewhere or need to be longer that were recorded by real instruments; this is a good place for that.

Pitch editing:

EQ (Equalizer)

Need to mess around with the pitch of a track like bass, mids, and highs? Come here!

Annotations:

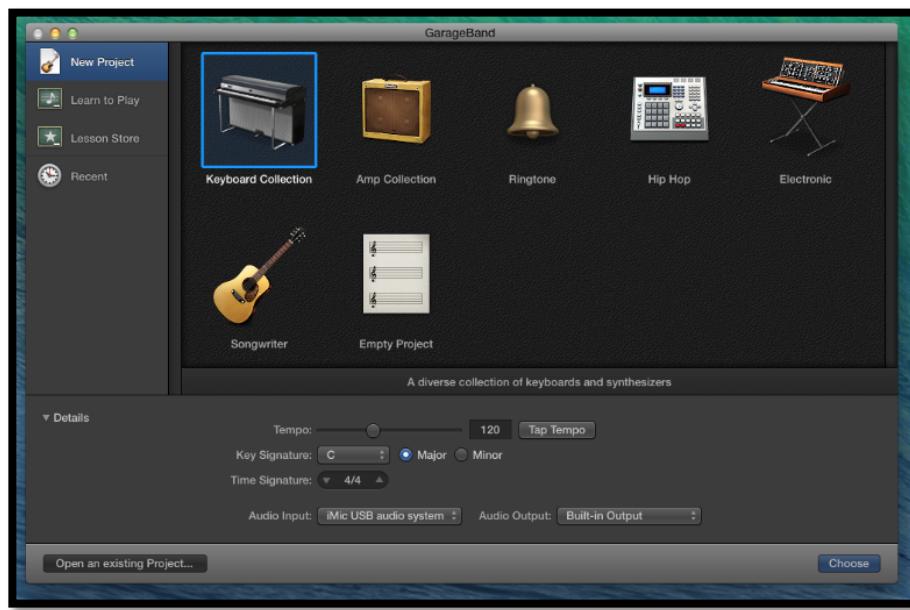
Need to fine tune where certain effects come into play like those pedals? Or maybe need to put some more or less volume on a part? Here's where to start.

EXPORTING & IMPORTING

Done with everything and getting ready for the world to see it? Or do you want to get something from the world and sample it into your own piece? Look here for more.

Getting Started

When clicking on the GarageBand icon, the new interface on default opens up the last project GarageBand had worked on. For the most part you cannot really change this, unless you make another blank project and use it as a template ([more info @ murrayewing.co.uk/gmoogb/article_17.php](http://murrayewing.co.uk/gmoogb/article_17.php)). In any case (since this is a public computer!), close the project that was up on default (save it as the date it is) and you should open up to a new 'Getting Started'-esque window.



In this window, there are quite a few options on the left side that are segmented into different parts:

1. **New Project:** This is where you start making music. We'll get to this in much greater detail below.
2. **Learn to Play:** Here, you can find program that is linked to introduction videos on how to play an instrument and sing, but most of the content is locked as a paid add on.
3. **Lesson Store:** This is where you buy all the lessons.
4. **Recent:** Look here if you need to go back to where you were last on, in terms of recording a project.

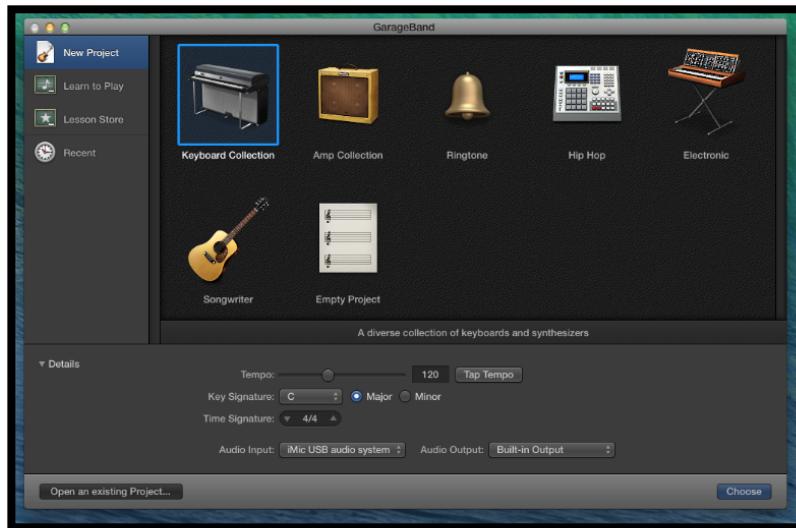
In this documentation, we will largely focus upon New Project and Recent, assuming you are here on the intent of solidifying your amazing musical ideas! And also these are free too, as the other options Learn to Play and Lesson Store require in-app purchases.

New

Project:

In this menu, you can start on your musical masterpiece. All the icons of instruments represent certain presets that GarageBand has for you. Clicking one of them and starting a project on one of these presets, there will be several tracks already laid out for you to try in whichever instrument preset you choose.

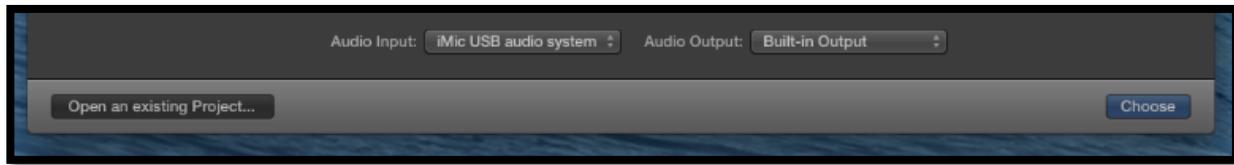
Also it should be mentioned that for the Ringtone preset, this will lay out loops that were already made on from some Apple musicians, and for the Empty Project preset, well won't be any of those tracks to lay on.



Furthermore on the bottom of the window, you will see several options that regard to the musical identity for the new project. Don't worry about messing around with any of this! You can change these in your project, so nothing is set in stone... yet (you can find the time signature, tempo, and key signature all at the top your new project).

These values are, yes, the more musically-technical values, and what are they doing here if recording music isn't much about the theory, but the feeeeel? Well for one, Garageband has an option for the Software instruments that you or a midi machine programs, that you can see a musical score printout of that particular track. Also for the time signature, this is used for the playback, recording, and metronome of the recording piece.

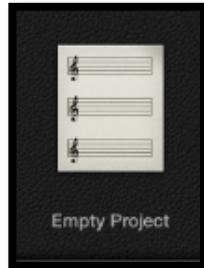
Oh, there is one technical-technical line, the last line. This should be set to (on this computer at least):



If not set to this, then beware! The program won't be able to hear your input or output within the project until you fiddle around with this again (if you're not getting any sound playing through the speakers or the computer isn't reading your instrument sounds, go to the top navigation bar, **Garageband>Preferences>Audio/MIDI**) If you don't hear anything, but have everything plugged in right on your Mac, you should look into messing around with these inputs/outputs options.

Knowing what's what.

So now we know how to start things off, for this documentation's sake, we'll start off by 'Empty Project.'

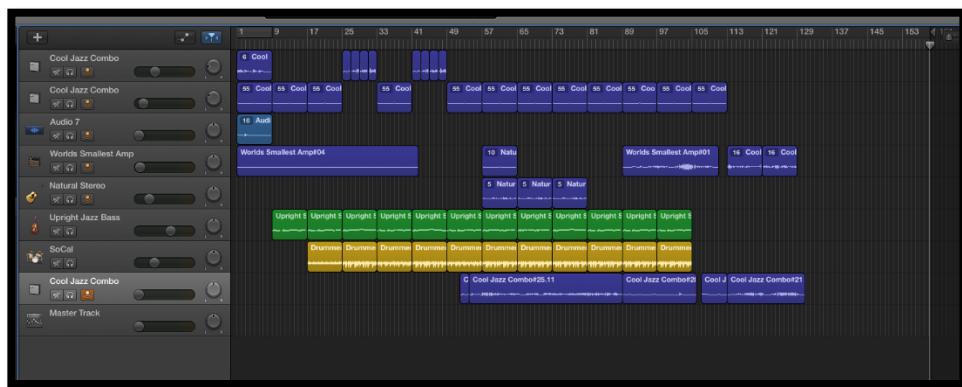


Some

User-Interface

Introductions:

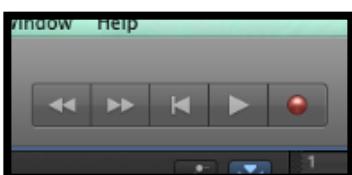
Let's start by pointing to what's what in this nice recording interface that we have here.



TrackBoard: where all the tracks show and where to plan your masterpiece, by moving, cutting, looping, etc...



To the left of the top of GarageBand (right below the x window button) you will see four gray buttons, Library, Help, Bottom Control Panel, and Track Editor. Each of these buttons will show/hide panels.



Next (to the right), you can see several different buttons that you're familiar with: the rewind, forward, stop, play, and record, all respectively. Several buttons will change once you move the track cursor (the big long

vertical line that spans across the vast empty black space) where the stop will turn into a rewind to beginning and then if you play/record the track (use space bar to pause and play and r to record), the play/record button will light up, indicating that the track is playing/recording.



On to the right of it or in the middle, there's a black box with blue characters, where the panel will show you some of the project's properties. Mentioned before, you can change the time/key signature, the beats per minute of the project and even change the counts from musical measures to actual time.



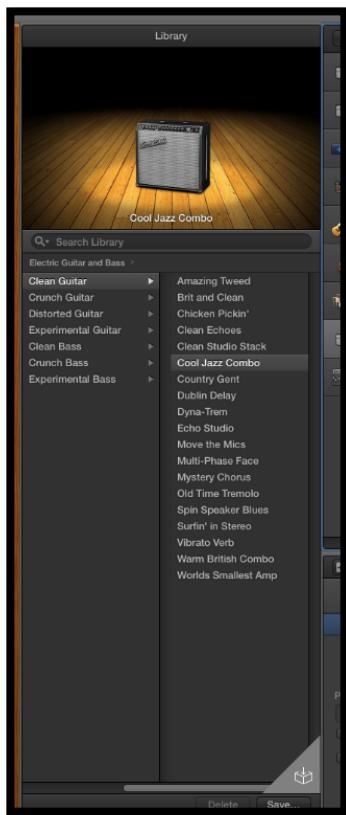
Furthest right, there are four buttons which are **Looper**, **Tuner**, **Count in**, and **Metronome**.

We'll get more into **Looper** later.

As for **tuner**, this tuner is a chromatic tuner that reads from the instrument cable and not a microphone of any sorts.

For **count-in**, this feature basically puts a count right before (or whatever is before in the track) you start to record, so if not pressed and when you hit record, Garageband will instantaneously record.

Metronome is a count that plays while on playback or record that helps you keep track of timing.



Library:

On the left most outward panel of GarageBand, there is the Library, which is a library of different presets that GarageBand has already put depending upon what track you are set in. If you want to hide this, click on the top stripe of it where it says Library and to open it up click any open gray space on the track. You can also just click the Library button to hide/show this panel.

Also know that you're not only limited to these presets as well! These presets are just as customizable, so for instance if you want some fuzz into the "Cool Jazz Combo" Preset,



Quick Help: Clicking on this, there will be a small black

box that should appear on the left of the GarageBand window. Hovering over anything GarageBand with the cursor will show a little synopsis of that the hovered item is.



Bottom Control Panel:

- *Info:* This will bring a left panel on the Control Panel that will let you customize the keyboard sensitivity of what buttons you input and also Audio Units that let you add instruments and gear that might sometimes need a little more customization to their processing.
- *Master:* This will set the levels of pitch and tone for your whole entire project for whatever of the top of the Bottom Control Panel offers.
- *Compare:* This will allow you to see what the difference is between different customizations. Pressing the Compare button you can start editing the different outputs you want to hear and then clicking the Compare again will allow for the original edit to come back.
- *Controls:* Varies for what you type of track you are in, but essentially allows you to edit the tone and pitch with knobs on different sections.
- *EQ:* Changes the pitch and tonal quality of the track/piece, but in a more graphical sense. More on this later.



Track Editor: In this window (the same place where you find the Bottom Control Panel) you will get to see that there are more options to just cutting and moving tracks, where you can edit pitch, or even timing on the track. Also this window allows the user to see the very details of the track that the user cannot normally see on the TrackBoard.

Parts of the Track:



- **Number:** This feature you will not see unless you are recording in takes, in another topic later we further delve into (Look at the section loops). The number represents what take that is on the track, and you can even press on it for different takes too!
- **Track Name:** The track name; you can also change the name of it by double clicking on the name.
- **Pitch Graph/Matrix Dots:** A helpful graph that shows the intensity of the track, where if a certain part is small it's much quieter in intensity and if it's very large, then very loud in terms of intensity. This graph can be further customized, in a later topic covered in this documentation called Flex Time. For the dots, these are found on Software Instruments that show the inputs.



The color of the tracks are also varied too. Here's some:



Red: Anytime when you are recording, the track will turn red as the track moves. Once it stops it will turn into several different colors depending upon what the color of the track is.



Purple: Guitar and Bass track.

Green: Software Instrument.



Yellow: GarageBand Drummer.

Blue: Microphone.



General Mouse Cursors:

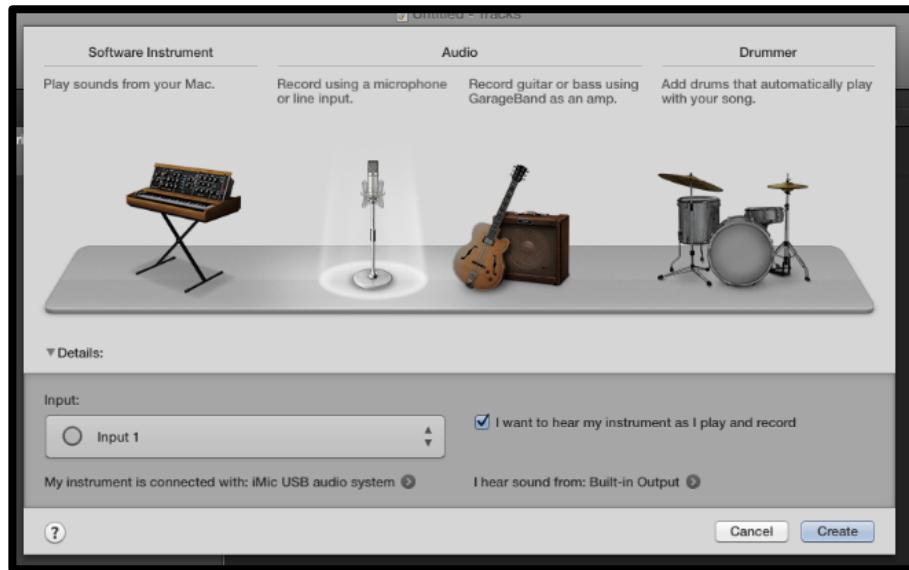
Regular cursor: Standard cursor; move, drop, click things.

Cutter/Extender: The cursor should be found when hovering over the edges of the bottom half of the track. In this cursor you can cut or extend the size of the track.

Looper: This cursor is found when hovering on the top half of a track, on the trackboard. This will allow you to extend the track by loops, meaning the current track you have placed down will loop if you use this cursor to push it out.

Already, GarageBand has given you a track 'Classic Electric Piano' on the 'Empty Project' preset. Click on the plus button found right above the piano track to add a new track.

Tracks



Software instrument:

For these set of instruments, they are instruments programmable through some external software based instrument such as a keyboard or a drum kit that has MIDI plugs, or your mouse and keyboard that is loosely called the Music Matrix:

- **Music Matrix** (big thanks to John Risinger)



This function allows you to use the custom input notes without using software instruments. The advantages of using this tool than rather than using a keyboard is to program melodies that your dexterity wouldn't allow you to do on a keyboard.

tldr; draw in notes (any software instrument) without using the keyboard or piano, but the mouse!

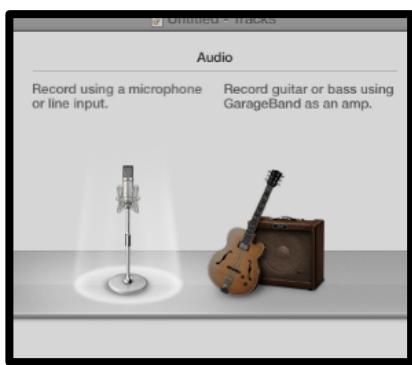
How to use:

1. Go to the software instrument
2. Then hold command on the track and a green box should pop up
3. Double click on the green box and on the bottom of the screen a close up view should pop up
4. In this window, hold command and then point with the mouse to draw out the different notes

Musical Score: Yes! For the more musically technical people, you can just write (program really) your software piece in musical-theory-note-terms-thingy by hitting 'Score' on the top middle of the bottom section-window of the GarageBand window. On the left of the bottom section window, you'll be able to see all the note values and specifications. Use the command button again onto the score to draw in your musical theory-ness.

When you draw the notes smaller and closer together you can trill the notes so that it would sound a lot faster. Also when you use the velocity meter on to the left that measures the velocity at which you would hit a note, but not how fast a note sounds. So for example when you hit a tom drum, if the velocity is fast the tom drum will sound much sharp because the velocity of when you hit the drum is very fast.

Audio Instrument: This option is actually split into two different categories, microphone and guitar and bass.



On the guitar and bass option, there are options to edit your sound with a varied amount of amps and effect pedals that are more suited for those instruments. On the other hand with microphones, it's much more of a raw effect-less preset to record.

If you want to experiment, it's okay to put your voice through the guitar and bass option or the vice versa, by either clicking the wrong or changing the effects on the Library panel that is found on the left side of GarageBand. In this option the input wires can be either of an instrument or a headphone cable hooked into an interface.

- Microphone: As explained earlier there are a couple of stripped down effects to choose from when recording a voice. When clicking the blue audio icon on the track panel, there are some controls and EQ's at your disposal to mess around with.

- **Guitar & Bass:** For this option there's a couple of set upon the Library panel that are pretty varied. You can even enhance these even more with pedals and different amps that Apple has tried to replicate on real life gear.

Where is all the guitar gear at?

In the new GarageBand they made it a little harder to find where all the amps and effect pedal customizations are at, so here's the documentation to help you!

1. Pull up the Bottom Track Control Panel by double clicking the track icon or the picture in the track.
2. Next if you look to the very top right of the Bottom Track Control Panel you will see two small boxes, one being the amp and the other being the pedal board. Both options will pull up another smaller window.
3. Now note! These options are only available to the "Electric Guitar and Bass" options in the library. These are not available on the vocals or acoustic guitar settings.
4. Play around now! Although there's some options for the amp without clicking on the amp button on the right side, these are only for the preset amp and don't have much control as the amps windows.
5. Want to be able to turn on/off the effects or some effects on the single piece of track? Look furthermore at the Annotations part of this documentation.

Drummer:



Opening up a new instrument, there will be a drummer option all the way to the right. Clicking this option allows you to insert a programmable drummer into your music piece, without the need to learn how to count rhythm or time.

How to use:

1. Click on the plus button to add a new instrument track and click drummer.
2. Double click on one of the yellow bars to have a bottom menu show up, here are the different options to customize your drum track.
3. The parts of the bottom drummer menu: (from left to right)
 - a. Drummer profile: This allows you to give your drum track a distinct personality by rendering the type of kit and the type of genre by subdividing it into different people.
 - b. Presets: These will customize the matrix (over to the right) to a distinct sound that Apple has already customized for you.
 - c. Drummer Matrix: This will allow you to gain much more freedom with the sound of the drumming by moving a marker amongst its range. Adding more vertical movement will determine its loudness and use of crashing on the drums and such, and moving it horizontally will allow you to customize the complexity of the beat, adding more beats and such.
 - d. Grayed out Drum kit: This will allow you to configure an influence of a certain drum percussion piece in the drum track.
 - e. Follow box: Right near 'Kick and Snare,' this will allow the drum track to follow a particular track, which is DIFFERENT than GROOVE TRACK because this will follow only a particular track, NOT the whole project will follow a particular track.
 - f. Fill and Swing Dials: these will allow you to add more fills (small drum solos in between measures) and swing (give a dancier feel to the track, rather than a normal drum track will only keep a beat).

Recording & Playback

Monitor

Apple does not your monitor as in your display! This is the term they used to determine whether or not you will get sound coming out of your outputs when you record or just when you have the interface open at all, unless if you are on playback.

To turn on this feature go to the track you are on and click the wifi-looking or three wave button. It will toggle on as orange if Monitor is on, and be grayed out if not!

Looping

This feature in GarageBand will allow you to playback any section of time/measure of your choice. This is super helpful when you are soloing on one particular backtrack and you need to do the solo in several different takes.

1. To start this off you can either click the Looper button found on the top right, right of the black box, the first button of the 4 set (the one that looks like the loop) or go to the ruler on the TrackBoard and highlight whichever part you want to loop
2. If you pressed on the Looper button, on default a yellow bar should appear where on the TrackBoard ruler and should highlight 4 measures. Of course this is movable!
3. Now hit play or record and it will loop that highlighted section! When you record, it will record on takes if you are recording on different track than the one on playback and count in takes
 - a. Helpful tip! If you keep looping on and rip into a solo over multiple loops, just copy that one take over and over again and click on the number, and have it set that continuously (i.e. if you're masterpiece of a solo is starting on the 4th take and you ripped the solo all the way to the 7th loop, just copy recorded solo track 3 more times and set the numbers on the track each to 5, 6, 7 on the copied tracks.)

Editing your Record

Rhythmic Edits

Groove Track

A rhythmic function in Garageband that centralizes **all** tracks of a project to one track. So let's say for instance that all of your tracks are mismatched in a 4/4 time, like your guitar is playing at a $\frac{3}{4}$ time signature while your bass is playing at a 6/8 and the only thing playing on a 4/4 is your drums. Well since the drums are on the right time signature, just use the groove track feature on the drum track, and all of the other tracks in the other time signatures are played at the steady 4/4

tl;dr. if you have a guitar, bass, and drums and your drums are the only one that plays the correct rhythm that you want in your project, set the drum track to your groove time, and the guitar and bass fixes themselves into the same tempo as the drums.

How to access (Groove Track is usually never set to default to show it so this is required to use this feature):

1. Go to the "Track" on the top of the GarageBand Taskbar
2. Then scroll all the way to "Track Header"
3. Pan over it to show more of the options and click "Show Groove Time"
4. Now pan over to the left of a track picture (this track has to have something recorded or made in there) and there should be a star; clicking that will centralize that track to your Groove Track.

Flex Time

In GarageBand you can pull up a similar window to the Music matrix to program a real instrument. In this editor it allows you to maneuver where some of these sounds move. This is helpful when you have mistimed tracks that you really like, but you don't remember how to play it. Instead of rerecording the track and spending hours to figure out how to play it again, in this editor you can reprogram to skew the melody to reprogram the timing of the note.

Unlike the Groove Track, this allows you to skew the specific track, so if you are experimenting with different time signatures on top of other time signatures, this allows you to skew a certain track to a different time signature.

How to use:

1. Double click on a track with a sinusoidal wave on it (the squiggly lines that represent the sound waves on an instrument track) and a bottom menu should come up
2. On the bottom menu, left hand side, click the sideways hour glass looking button (very small button) and wait. Depending how much is going on in that particular track, meaning how many waves there are and such, you might need to wait a little longer if it is a very large and or detailed track, so that GarageBand can divide up all the parts (in many cases notes) in the track.
3. After waiting, vertical lines should appear on the track. When the cursor transforms into three pillars when hovering over a vertical line. This will now allow you to extend the part or shorten it to your desire.

Pitch and Tone Edits

EQ (equalizer)

In this panel of settings you can edit the pitch and tone of a track to have more pitch, bass, mids, etc... BUT the most important feature the EQ brings is manual filtering of unwanted noises like feedback, echo, and breathing in tracks by editing the levels of some of pitch and tone.

How to use:

1. Bring up the Bottom Control Panel for a given track by clicking on the track icon picture, or bring up the Bottom Control Panel for the whole track by clicking on its respective button () on the top left.
2. Now you should see the EQ option on the top middle of the Bottom Control Panel.
3. Depending on what you want to accomplish, i.e. filtering, pitch adjustments, etc... use different dots on the graph to adjust what you are looking for.
 - a. For example, minimizing a feedback in the guitar track, you would probably need to minimize the right side's pitch to be under the equilibrium bar.
 - b. For breathing and echos you might want to look into turning the EQ graph's pitch to be higher in tone, etc...

Annotations

In short, this interface allows you to control when you can specifically turn on certain effects and tones of a given track. For example, when using the pedal board there are sometimes within a solo that a given time, you would want to switch off the effect without cutting the track or creating a new track all together. Annotations are described in a line graph of when to not only turn the pedal on or off, but can be used to control volume, tone, pan, etc...

How to use:

1. Looking to the list of tracks, on top right there should be two buttons, click the one that looks like a line graph.
2. Clicking this option, the tracks on the TrackBoard should get noticeably larger with light lines across the track.

3. Clicking anywhere along the lines you should be able to change the height of them with dots. On default the line will represent Volume. If you go to the track icon, you should be able to see a drop down box that says Volume and you can switch it to effects or pan.
 - a. Note that on some of the options it will be a more 'on or off' (the dots can be placed on only the extremes or top or bottom of the Annotations' chart) than fine tune like you see with volume and all the dots all across the track.

Importing/Exporting

If you are importing files then, you are bringing files into your project like other songs or loops, which are very useful for sampling music. When you are exporting, this will be the last thing you do when you are finished with the project or testing your project out; taking your project and formatting it into a file extension like mp3.

Importing:

1. Go to the top taskbar of the display and go to file
2. Then click Import
3. Locate the files that you want to put into your piece and you're done!

Exporting:

1. Go to the top taskbar of the display and go to File
2. Then you will see a varied amount of options. Depending upon where you want to have your file located at, click one of the following options (note that when you do click "Export to Disc," this in fact means it will export it to your HDD, not an actual disk).
3. You can also chose what quality you would like to put your piece at (higher the quality, larger the file, vice-versa)
4. Also you can save your piece in a varied amount of extensions, but the most standard is mp3.