GarageBand 2.0 – Getting Started

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GarageBand 2.0 is the musical component of Apple's iLife '05 Suite. Novice and more advanced composers can use GarageBand's library of pre-made musical snippets to create songs and become more familiar with the program. Even if you have little to no musical training, GarageBand allows you to create musical elements for your iLife creations.

After you've completed this tutorial, take a look at "GarageBand 2.0 – Recording, Editing, & Mixing" to learn how to record and tailor your own instrumental and vocal performances.

Objectives

By the end of this tutorial, you will be able to:
- work with the GarageBand interface.
- start a new GarageBand song and choose/change its attributes.
- create a song using Apple's pre-made loops.
- expand GarageBand's collection of instruments and loops.

Helpful Terms

Balance – changes the amount of sound coming out of each speaker. Default setting (middle of the dial) is equal sound from each speaker.

Beat – the basic pulse of a song.

BPM – beats per minute. 120 bpm is equivalent to two beats per second. *Tempo* is measured in bpm.

Key – The central note of the song. The other notes center around this.

Loop – a pre-made musical snippet that you can add to your creations. Entire songs can be made using only loops!

Measure – each song is divided into measures, which always contain the same number of *beats*, depending on the *time signature*. The numbers on the ruler at the top of the window denote measures.

Real Instrument – Tracks using these instruments are actual audio recordings. They can be cut, copied, and pasted, but the actual notes cannot be edited.

Software Instrument – Tracks using these instruments are computer-generated. The actual notes of the track can be changed.

Tempo – how fast or slow the beats go by. Measured in *bpm*.

Time [Signature] – denotes how many *beats* will be in each *measure* (the first number) and what length of note will count as one beat (the second number). 4/4 is the most common time (four beats per measure); waltzes are in 3/4 (three beats per measure).

Track – GarageBand songs are made up of many *tracks*; each line in the main window is a different track.

Contents

I. Beginning a New Song

GarageBand comes preinstalled on new Macs as a member of the iLife '05 Suite, which also includes iPhoto, iMovie HD, iDVD, and iTunes. The program icon, an electric guitar (see right), should appear in the dock.
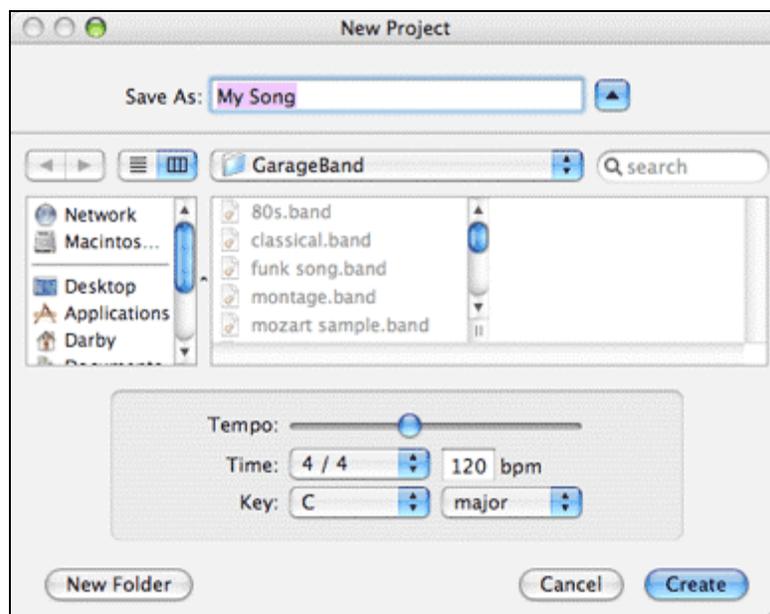
Note: GarageBand is a large program that uses a lot of memory, so it normally takes longer to start up than other programs. If you find the program to be too sluggish, try closing the other programs running on your computer to free up memory.

If you have worked in GarageBand recently, it may automatically open your most recent song. Otherwise, when the program is launched, a window asking if you want to create a new song or open an existing one will appear.

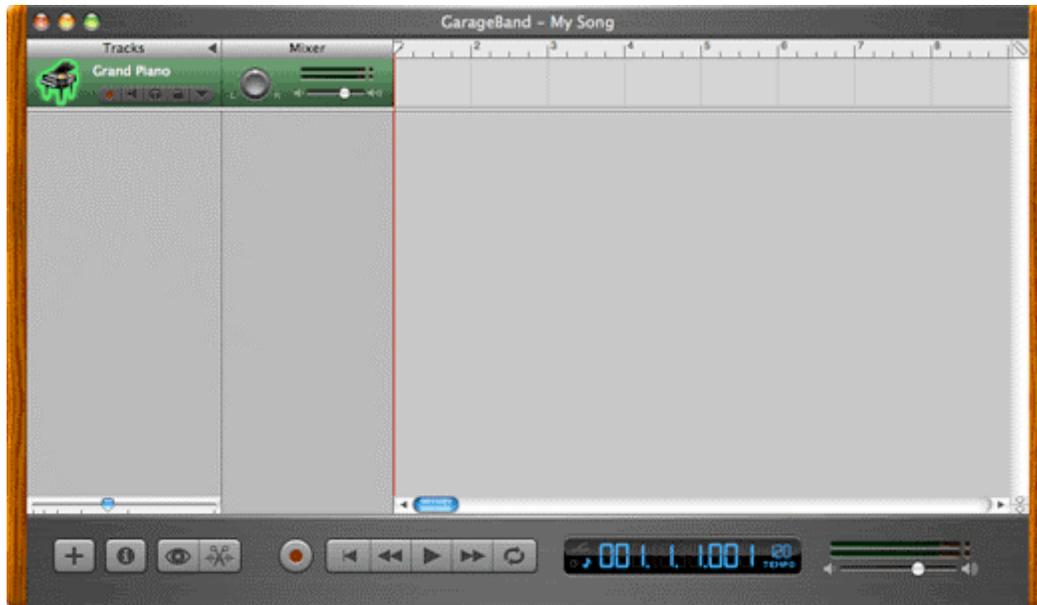

Click on Create a New Project to get started.

GarageBand now asks you to name your file before you begin. Also, you need to choose a *time signature*, *tempo*, and *key* for your song. Don't worry; you will be able to change these attributes

later if needed (see III. Using Loops – Changing the Master Track). Click on Create to begin editing your song.

II. Interface

You will now be at the main GarageBand window. Let's take a look at some of the main features of the interface that will help as you start creating songs.
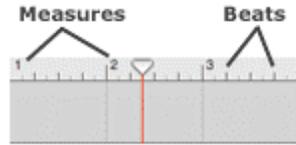

Tracks

As you add elements to a song, each will appear as a different *track*. Each instrument will be a different track, although you can have more than one track that uses the same instrument. When you begin a new song, GarageBand will automatically include an empty Grand Piano track.

Information about a track appears in a green, blue, or orange box on the left side of the window. *Software instrument* tracks are green, *real instrument* tracks are blue, and tracks that do not have a set tempo (certain loops and imported files) are orange. The left section denotes the instrument being used. The right section includes a knob to adjust balance and a slider to adjust volume. These adjustments will only change this track.

To the right of a track's information is the area in which you'll actually place the elements to be played. The area has a ruler at the top; the numbers count *measures* and the dashes partitioning each measure represent *beats* (these will vary depending on the *time signature* you chose when you began the song).
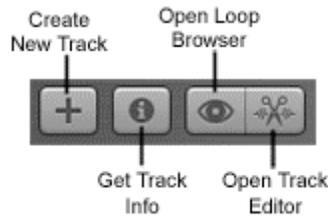
The triangle and the red line extending from it tell the current location within the song (in this tutorial, I'll refer to it as the "progress marker"). As the song plays, you can watch the progress marker to see which part is currently playing. Click and drag the triangle to move to a different part of the song.

Now, take a look at the grey bar of buttons along the bottom of the window.

Left Buttons

On the far left side of the bar are four buttons that will help you create and edit tracks.

Create New Track adds a new track to the window. A window will appear asking you to choose and/or edit the instrument that you want to use.

Get Track Info – Select the track whose information you want to display/change by clicking in the main track box (where the instrument is displayed), click on the Track Info button, and the same window that allowed you to create the track will appear.
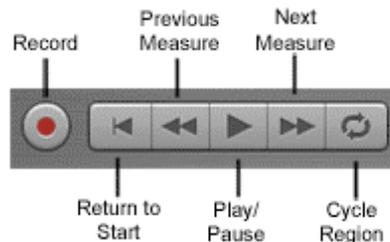
Open Loop Browser opens a searchable collection of GarageBand's pre-made *loops* at the bottom of the window. Much more about these in the Using Loops section.

Open Track Editor – Select the track that you want to edit, click on the Track Editor button, and an area in which you can edit your tracks will appear at the base of the window.

For much more about creating and editing tracks, see the "GarageBand 2.0 – Recording, Editing, & Mixing" tutorial.

Center Buttons

These buttons allow you to control the recording of tracks and the playback of your song.

Record begins recording in the track(s) with the record light on. The "GarageBand 2.0 – Recording, Editing, & Mixing" tutorial discusses recording in more depth.

Return to Start – returns the progress marker to the beginning of the song.

Previous Measure moves the progress marker back one measure.

Play / Pause plays or pauses the song at the progress marker's current location.
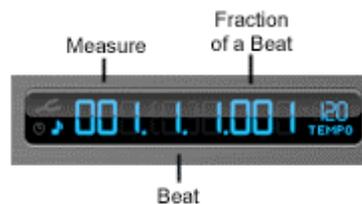
Next Measure advances the progress marker one measure.

Cycle Region turns on a yellow area in the ruler that can be moved and resized. When the time marker reaches the end of the highlighted area, it will return to the beginning of the area and repeat indefinitely. This is only used during recording; once the song is exported, the region will not repeat.

Time Counter

The next area to the right at the bottom of the GarageBand window displays the current location of the progress marker in the song. Time can be measured in two ways.

When the small musical note in the lower left corner of the box is selected, the timer measures the song in measures, beats, and fractions of a beat.

The timer can also display the time marker's location in hours, minutes, and seconds. Click on the small clock to switch to this display mode.

The song's *tempo* in *bpm* is displayed to the right of the counter. Click on the tempo and move the sliding bar to easily adjust the song's tempo.

Volume

In the bottom right corner of the GarageBand window is a slider that adjusts the song's output volume. This controls the volume of the song as a whole. To adjust the relative volume of individual tracks, use the volume controls in the tracks themselves.

Monitor the gauges above the volume slider before you export a song. If the red dots at the right end of the gauge are lighting up while the song is playing, your exported song may be distorted by sharp popping noises (know as "clipping"). Decrease the output volume until the red dots no longer light up. For more information on clipping and how to prevent it, see the "GarageBand 2.0 – Recording, Editing, & Mixing" tutorial.
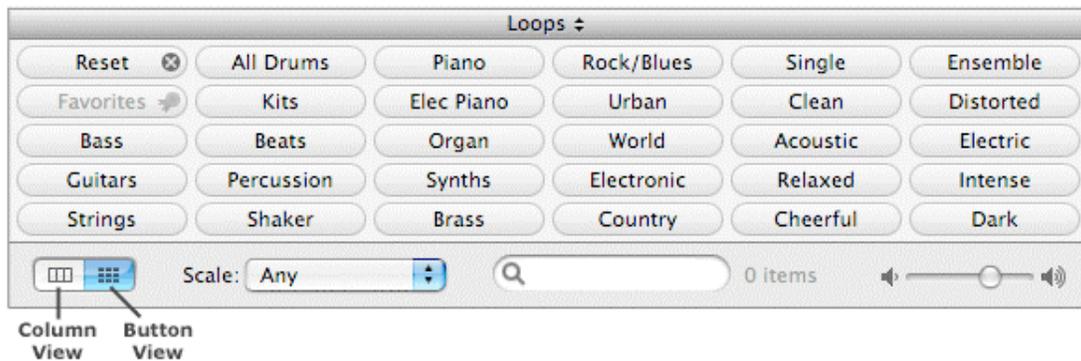
III. Using Loops

GarageBand 2.0 comes with over 1,000 pre-made loops. These can be added to your recorded performances (ex: add a drum track or a bass line). You can also create songs made entirely of loops; this is an easy way to create soundtracks for your other iLife creations. Also, creating songs with the loop library is a fun way to become more familiar with GarageBand.

To open the loop browser, click on the eye button in the lower left corner of the window (yes, it's a rather unintuitive icon).
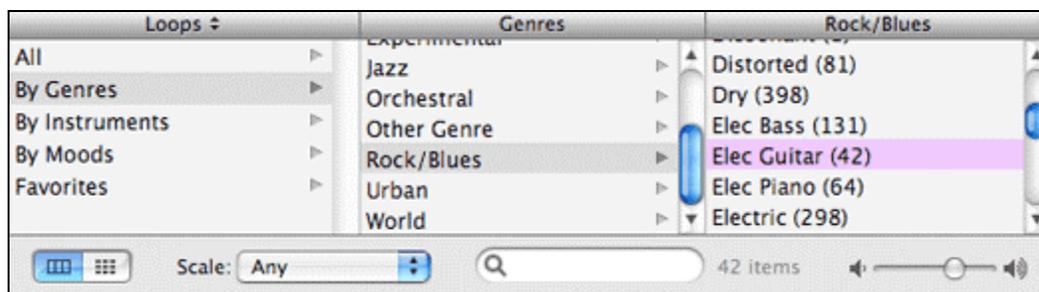
Searching

The loop browser will open in the bottom of the GarageBand window. The browser can be displayed in column or button view. By default, the window will probably appear in button view; to change this, click on the buttons in the bottom left corner.

In button view, simply click on the buttons that describe the loops you want. For example, if I'm looking for a cheerful rock guitar loop, GarageBand will search for loops with those attributes when I highlight those buttons.

To expand the number of buttons shown, click on the brushed metal bar above the loop browser (with the buttons on it) and drag it up. Also, if you'd like to move or reorganize the buttons, simply drag a button to the desired location; it will switch places with whatever button is currently in that location.

In column view, each selection you make narrows your results and allows you to make further selections in columns to the right.

You can also search the loop library for certain words in either view. Enter the term you'd like to search for in the box with a magnifying glass at the bottom of the loop browser.

To limit your search by scale (major or minor), click on the drop-down menu beside "scale."

Search Results

After choosing or entering search terms, your results will be listed on the right side of the loop browser. Click once on a loop to listen to it. Click on it again to stop the preview.

	Name ▲	Tempo	Key	Beats	Fav
♪	Dreamy Guitar Pattern 10	75	A	8	☐
♪	Dreamy Guitar Pattern 11	75	A	8	☐
〰	Edgy Rock Guitar 12	84	D	16	☐
〰	Edgy Rock Guitar 14	103	B	16	☐
〰	Edgy Rock Guitar 15	92	C#	8	☐
♪	Fast Guitar	240	C	4	☐
〰	Funky Electric Guitar 01	125	B	8	☐
〰	Funky Electric Guitar 02	121	D	8	☐

The results list includes a tempo, key, and number of beats for each loop.

Tempo is the suggested tempo, in *bpm*, for that loop. Notice that the loops in my results have a variety of suggested tempos. However, when I preview the loop, it will not play at this tempo; it will play at whatever tempo I have chosen for my song (remember, you can change this on the right side of the time display).

When you add a loop to your song, it will play at the same tempo as the rest of your song. So, you can add loops with different suggested tempos to your song, and they will all play at the same tempo. However, some loops may sound strange at different speeds; if you want to mold a song around a particular loop, you may want to adjust your song's tempo to the loop's suggested tempo.

Key is the original key of the loop. When you preview a loop, it will play in this key. However, when you add it to your song, it will automatically transpose (change its key) to match the key you've chosen for the song. For many loops, this is not a problem. However, loops with melody and harmony lines may sound unnatural when played in a different key.

Beats is the number of beats that a loop lasts. You can extend a loop to repeat over any number of beats (after all, they are called loops!), but the number listed here tells how many beats will play before the loop starts over.
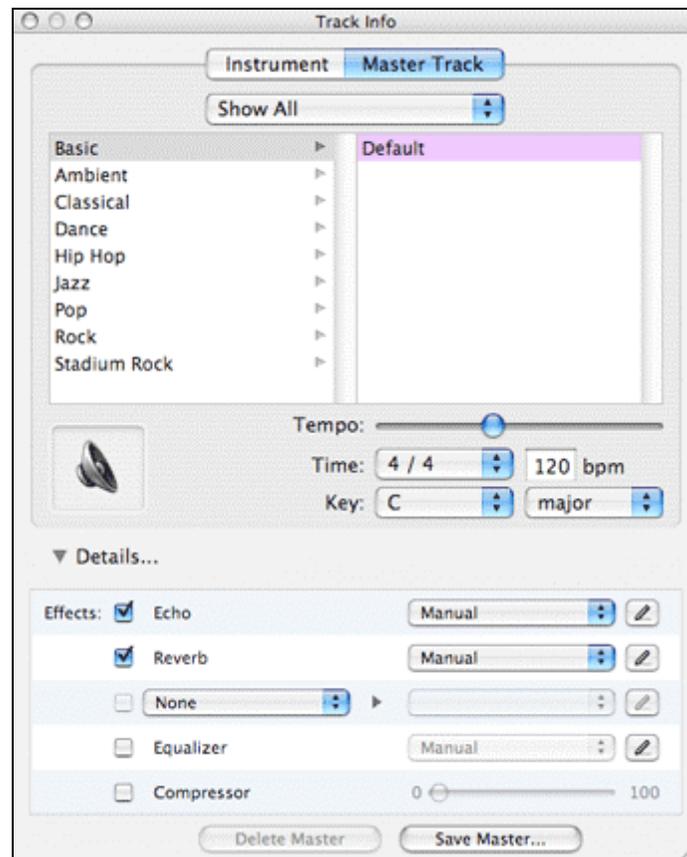
> *Note*: Most of GarageBand's loops were created to be used in 4/4 time (i.e. four beats per measure). If you create a song with a different time signature, the loop browser will not bring up many, if any, loops. For example, when I create a song in 3/4 time (used for waltzes), only four loops are available to me in the browser.

Not every loop will include all of these elements; some do not have a specified tempo or key. However, every loop will list the number of beats that it spans.

You can keep track of your favorite loops in the browser's Favorites category. To add a loop to it, click the *Fav* checkbox in the results list.

Changing the Master Track

To edit the overall attributes of your song (tempo, key, etc…), go to the Track menu and Show Master Track. Highlight the Master track that appears at the bottom of the track listing and click on the Track Info button (see right). Here, you can make changes to your song.
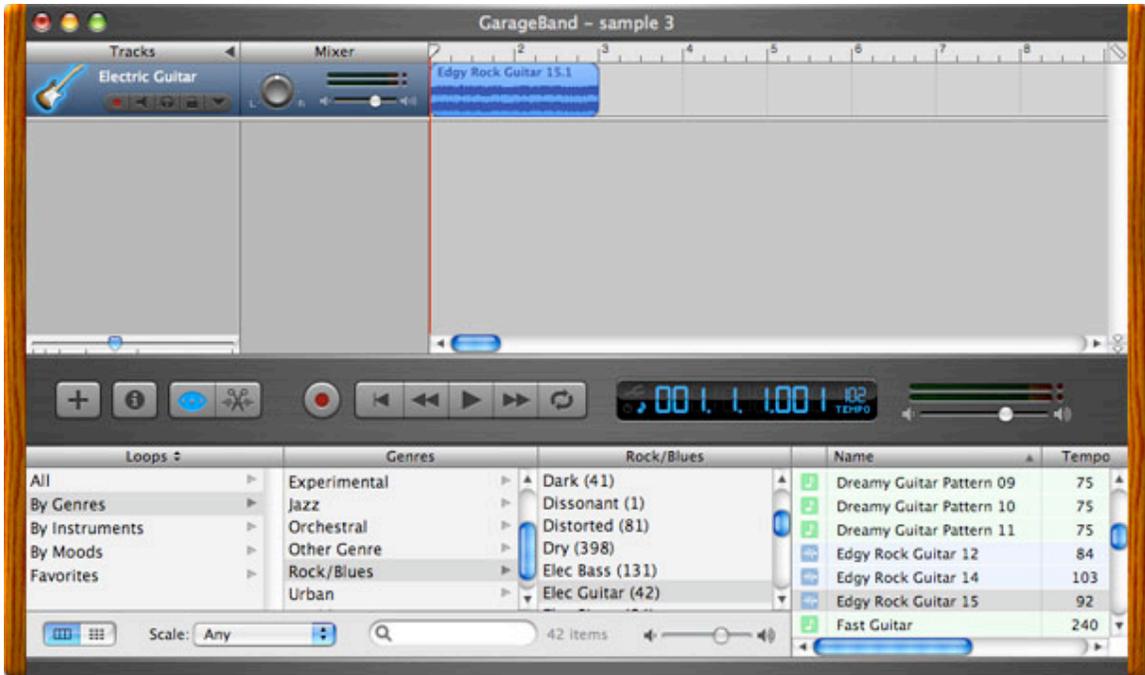

You can also get to this window by selecting any song track and clicking on the Track Info button. In the window that appears, click on the Master Track tab at the top.
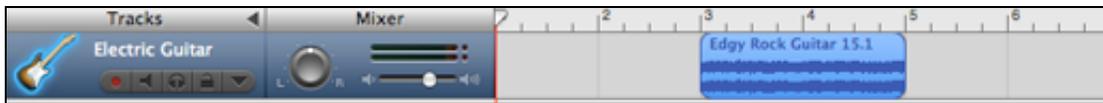
Remember, you can quickly change the tempo of your song on the right side of the time counter display, but you can only change the song's key and time signature in the Master Track window.

Adding Loops to Your Song

Once you've chosen a loop that you like, add it to your song. Click and drag the loop up to the track area of the GarageBand window. Release the loop in an unoccupied part of the track area, and it will create its own track. The loop will appear as a green, blue, or orange box on that track's line.
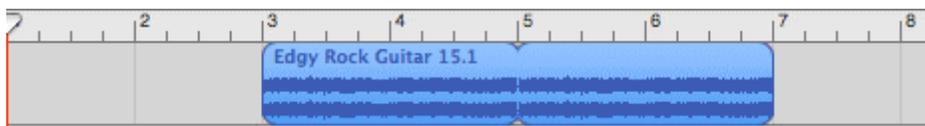
Click on the loop in the main window (the cursor should remain the usual arrow) and drag it left and right to the measure where you'd like the loop to start playing. For example, if I want "Edgy Rock Guitar 15" to come in at the beginning of measure three, I drag the box to where the front edge aligns with the beginning of measure three.

What if I want "Edgy Rock Guitar 15" to last for more than eight beats? I want it to repeat an additional time, for a total of 16 beats. To do this, I'll place the cursor at the right end of the blue loop box. As you move the cursor up and down along the edge of the box, the arrow should turn into two new cursors:

The loop pointer extends the loop and repeats it.

The resize pointer resizes the loop but does not make it repeat.

Since I want to extend the loop and have it repeat, I'll move the cursor to where it turns into the loop pointer. Now, I can click and drag to extend the loop as far as I'd like. Here, I've added an additional 8 beats.
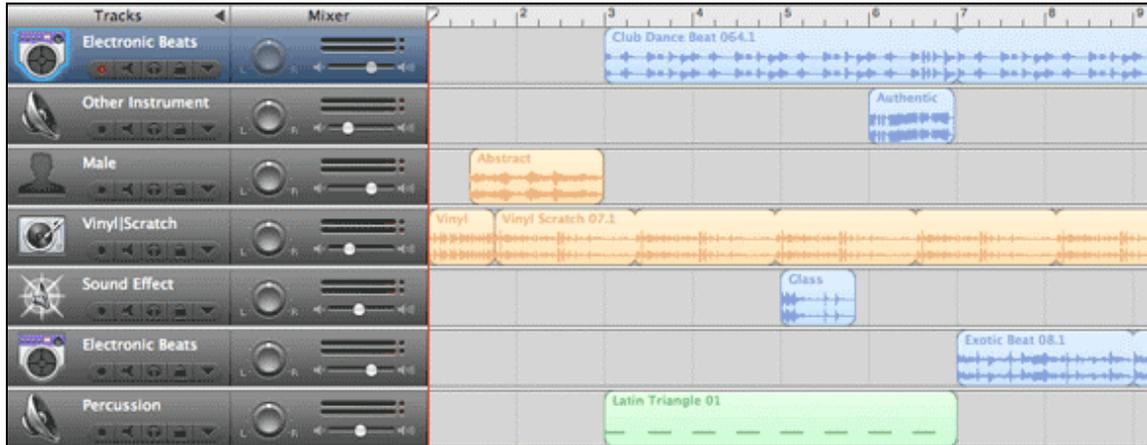

The resize pointer can shorten or lengthen loops. If you only want to use the first few beats of a loop, move the cursor to where it becomes the straight arrow. Click the right edge of the loop and drag it back until you only have the amount of the loop that you want to use.

From Loops to Song

GarageBand has almost 1,000 loops from a variety of musical genres, so you will almost certainly find something usable. Included are: rhythm tracks, bass tracks, sound effects, melody and harmony lines, and much more.

Take a look at a clip from a simple song I created entirely from loops:

The key to making interesting songs with loops is experimentation. Search for the type of loop you have in mind, but also browse through other categories to find some interesting loops you may not have known existed. Rearrange your loops. Extend them and shorten them. Loops are designed to mix well, so combine them with a variety of other loops and see what sounds best. Don't be afraid to try something different; loops that sound strange by themselves may sound great when combined with others.

Even if you don't know much about music theory, you can use GarageBand's loops to create songs for your iLife creations. You'll be pleasantly surprised by how easy (and fun) it can be to make interesting musical pieces.
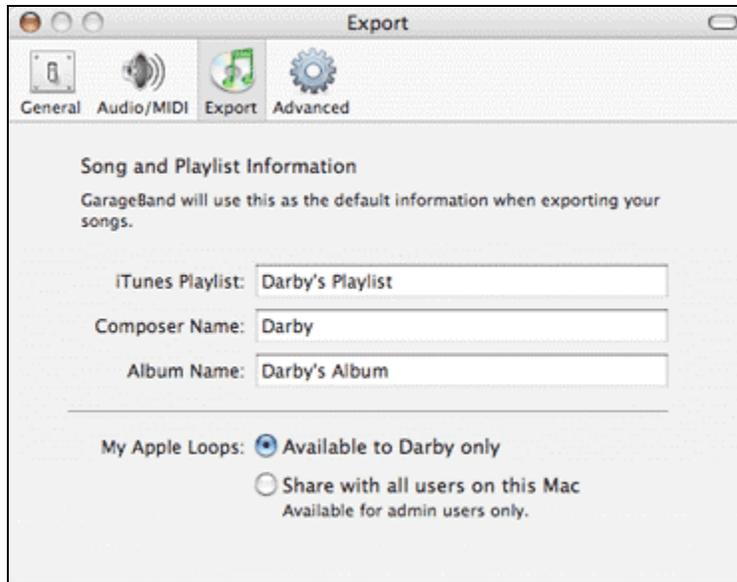
IV. Exporting & iLife Integration

Creating a song in GarageBand is pointless if you can't use it in other programs! Thankfully, it's easy to export your songs for use in other iLife programs and for burning to audio CDs.

Once your song is complete and ready for use, simply go to the File menu and select Export to iTunes. GarageBand will process the song and immediately open iTunes. Your song will appear in your library alongside your other audio tracks. Here, you can edit the title, artist, and other information about the song.

To enter standard artist and album information about your exported songs, go to the GarageBand menu and select Preferences. Click on the Export tab to enter this information.

For more information about iTunes, see our iTunes 6.0 Tutorial.

iLife Suite Integration

The iLife Suite '05 is composed of iMovieHD, iDVD, iPhoto, and GarageBand.

GarageBand works with these other programs via iTunes. Once you've exported your GarageBand creation into iTunes, you will be able to incorporate it into your movies, slideshows, and DVD menus. For specific information about using iTunes tracks in these programs, see our tutorials for iPhoto, iMovieHD, and iDVD.

V. Expanding GarageBand

Apple offers four expansions for GarageBand 2.0, although the release of GarageBand 3 has made them more difficult to locate. Each Jam Pack includes dozens of new instruments and over 2,000 loops.

Each pack has a different theme, giving you the ability to customize GarageBand to your tastes and needs.

VI. Helpful Links

Apple Manual – GarageBand At a Glance:
http://manuals.info.apple.com/Apple_Support_Area/Manuals/software/GarageBandAtAGlance.pdf

Apple Manual – GarageBand Lesson 1 (Basic Arranging):
http://manuals.info.apple.com/en/GarageBand_TutorialPt1.pdf

Keyboard Shortcuts

Apple provides a page of keyboard shortcuts for many GarageBand tasks. This page is also
accessible through the Help menu in the program:
http://www.apple.com/support/garageband/shortcuts/