

 Gnome Digital Media / recipe4DVD presents:

# Take Garage Band out of the Garage...



**Date: Wednesday, January 12, 2005**

**Presenter: Bruce Nazarian, MPSE - Gnome Digital Media**





- and some other cool add-ons, too!
- and a brief Q & A





# Tools for GarageBand: I/O, Keyboard, Midi



# Audio In/Out

Just like in a professional recording studio, great microphones, preamps, and speakers mean you can create a higher quality product, and hear more accurately while Mixing.



<http://www.m-audio.com>



# Data In/Out

A good keyboard will let you program parts easily, and will likely also provide MIDI In and or Out as well. The M-Audio 49-key is connected and powered by USB, so no need for a dedicated MIDI port or PSU.



<http://www.m-audio.com>



# Extra MIDI Ins/Outs

In addition to the internal voices available, MIDI data can be routed to external voice modules via a MIDI Interface



MIDI 2 In 2 Out



MIDI 4 In 4 Out



<http://www.m-audio.com>



# Extra Mixing Channels?

At some point, your music studio might even grow larger than your Mac - perhaps that's a good time for extra mixing channels to add to the fun.



<http://www.mackie.com>



# Need More Controls?

and then there's *The Big Knob* controller - which adds the Kitchen Sink for studio controls. Adds Speaker switching, talkback, input select, even LED metering!



<http://www.mackie.com>



# Maybe some day...



Larrabee North,  
Control Room A  
Los Angeles, CA

Acoustic Design:  
Steven J. Klein

Photo:  
Ed Colver



<http://www.soundcontrolroom.com>





# Tempo

Every GarageBand song has a defined tempo, to establish the speed of the song; this is set in the original song setup, and can be modified in the **Master Track** setup in **Track Info** - but each song can have only **ONE tempo!** This may make a bit difficult to do sophisticated musical functions like *accelerando* and *decelerando* (speeding up and slowing down) but **pop music**, in general is performed at a constant **Tempo** from start to finish.



# Tempo - how fast?

*Drag the slider, or enter a value in the 'bpm' field to establish the Tempo of this Song*

Tempo:  115 bpm

Time: 4 / 4

Key: C

Details...



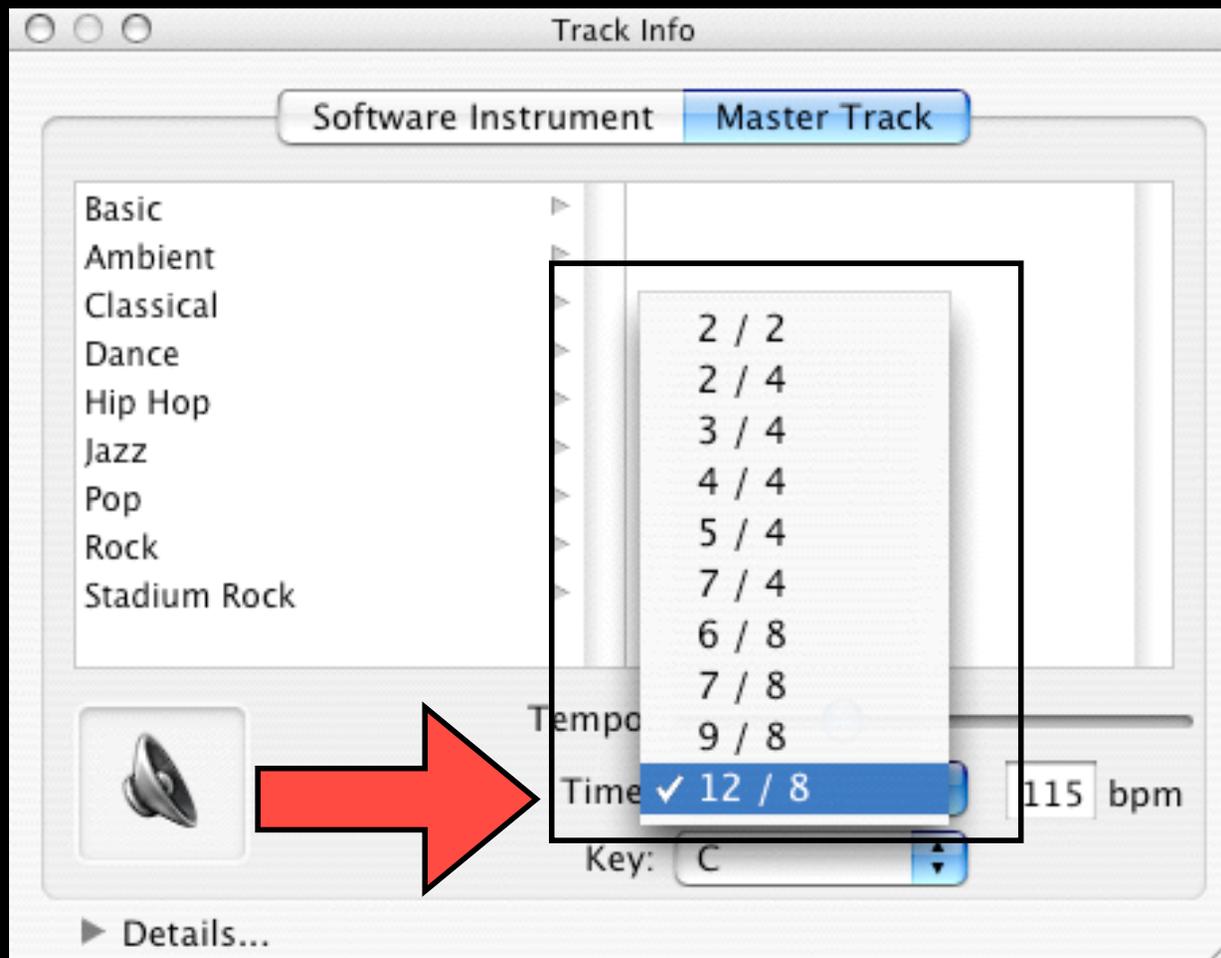
# Meter - “Time Signature”

Every GarageBand song has a defined Meter, also called Time Signature, to establish the number of beats per minute; this can also be modified in the **Master Track** setup in **Track Info** - but each song has only ONE Meter!

Meter is denoted by a fraction, like  $4/4$  which means 4 beats per measure, each a quarter note, or  $12/8$  meaning 12 beats per measure, each one an eighth note. The “feel” of the song can be greatly influenced by the Meter you select.



# Meter - “Time Signature”

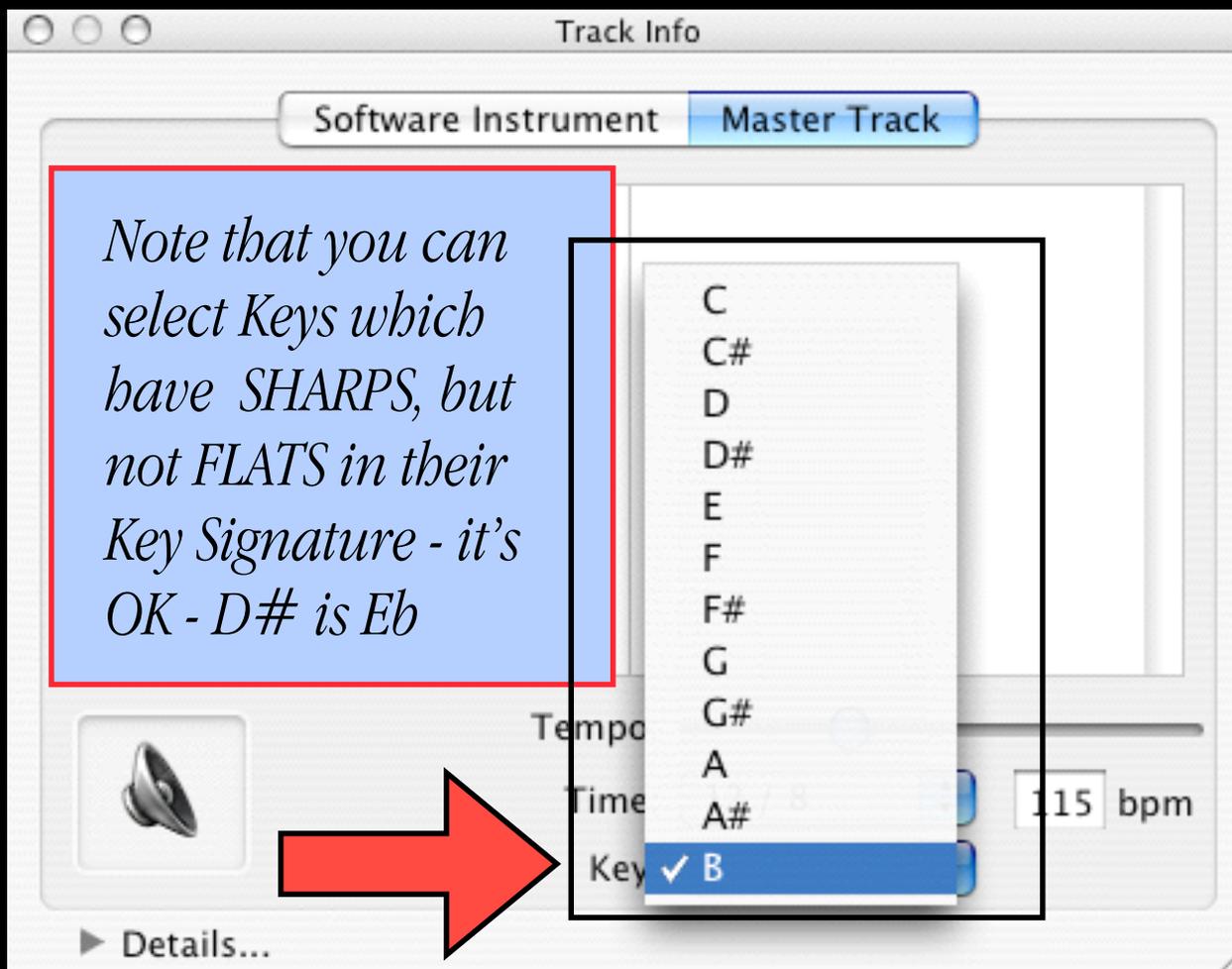


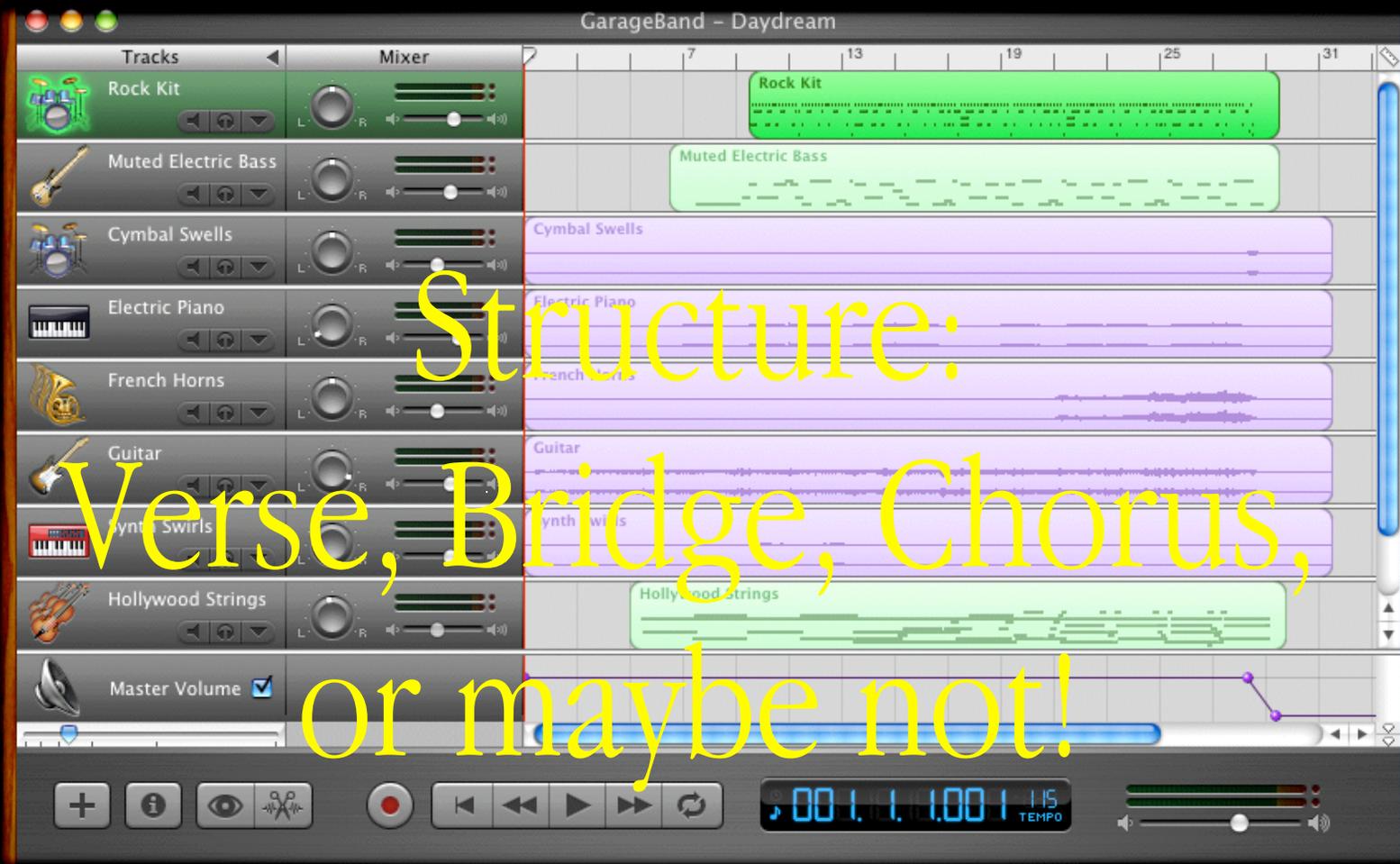
# Key

Every GarageBand song has a defined Key, to establish the tonal home base, or modality of the song. Countless books have been written about the psychological effect of KEY on the MOOD of the song. Key is set in the original song setup, but can be modified in the **Master Track** setup in **Track Info - Each GarageBand song has only ONE Key**, so you may have to do some tricks to make something sound like it has **modulated!** (**Modulation** is music-speak for changing Keys during a song.)



# Key - “Tonal Home Base”





# Structure - Song or Score ?

Every GarageBand composition can be arranged in the timeline to be free-form, or organized into pop song structure - The beauty of the system is that the timeline allows you to create, copy and rearrange pop song snippets to your heart's desire, or to compose flowing linear sequences that might resemble something like film scores or "electronica". Even long linear tracks can be segmented, and rearranged, looped, repeated, etc. Think of GarageBand as a "Word Processor for your Music"!



# Pop Song structure

## *My Killer Composition*

| VERSE | BRIDGE | CHORUS |

| VERSE | BRIDGE | CHORUS |

| SOLO | BRIDGE | CHORUS |

| CHORUS | CHORUS | CHORUS |



# Linear structure

*My Dreamy film score*

*Theme A* | *Theme B* | *Theme C*

*Theme D* | *Theme E* | *Theme F*

*and so on...* | *and so on...* | *and so on...*

| | |





# Mixing and Mastering



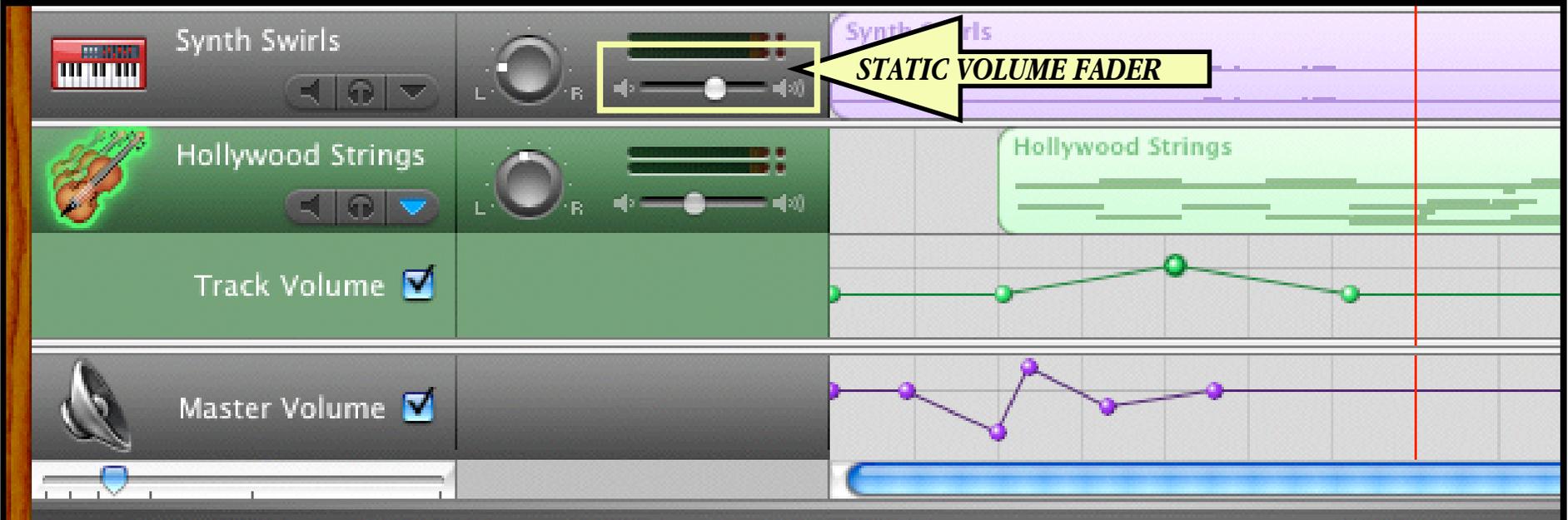


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# Level - static, or...?

You can set a fixed “static” volume for each track, and let that instrument maintain a set level within the mix, or...



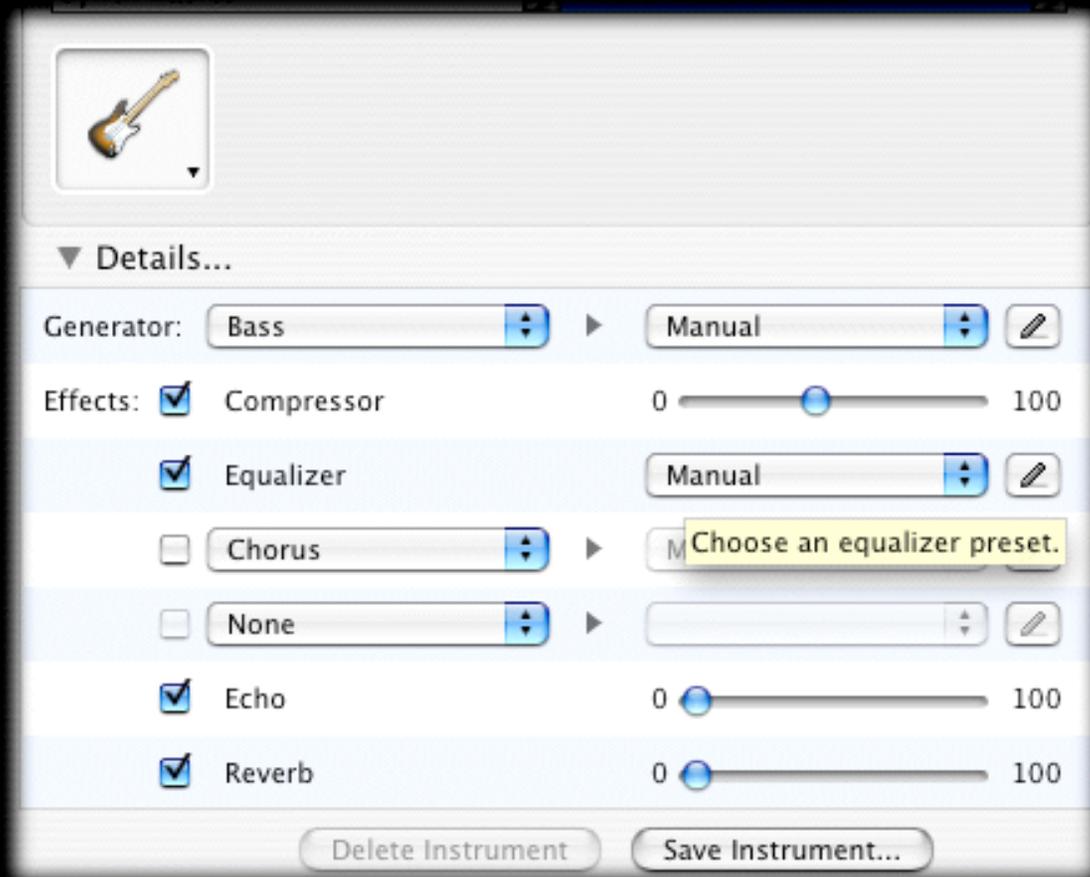
# Level - dynamic?

...you can open up the Track Volume automation control and set dynamic volume “rides” or “moves” to level or enhance. This is just like pro automated music mixing!

The screenshot displays the GarageBand interface with three tracks: Synth Swirls, Hollywood Strings, and Master Volume. The Hollywood Strings track is highlighted with a yellow circle around its volume control icon. A yellow arrow labeled "VOLUME REVEAL" points to this icon. Below the track, the "Track Volume" checkbox is checked, and a yellow arrow labeled "TRACK AUTOMATION" points to the automation lane, which shows a green line graph with four control points. The "Master Volume" track also has its checkbox checked, and a yellow arrow labeled "MASTER AUTOMATION" points to its automation lane, which shows a purple line graph with four control points. The interface includes various icons like a keyboard for Synth Swirls and a violin for Hollywood Strings.



# FX - a huge can of worms!



Tastefully used, effects can be great; but if overused, they can bury your song. Effects are programmed into each Instrument in the **Track Info** pane.



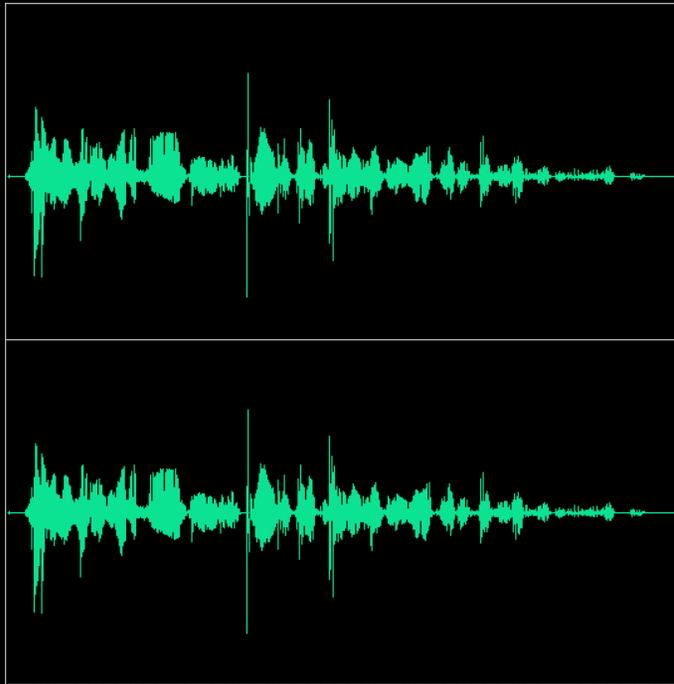
# Mastering - final step



Mastering can dramatically shape the final sound of your creation: Eq-ing and Leveling of the entire mix is possible in Pro Tools w/Waves, Bias Peak, even FCP!



# Mastering - export AIFF



Don't forget you can submix your entire composition into a Stereo AIFF file, and use that as the basis of a new composition!





# GarageBand Performance Tips



# Speed make a difference

A 2.5 GHz G5 is better than a 1.5 GHz G5!

Repeat after me:

“Faster is better”

“Faster is better”

“Faster is better”

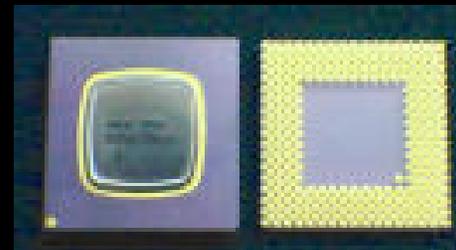
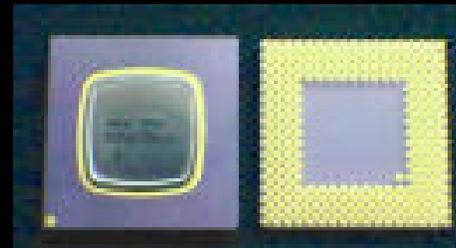


# 2 CPUs make a difference

I mean, do we really have to have a discussion about how a dual processor system is inherently more powerful than a single-processor G5?

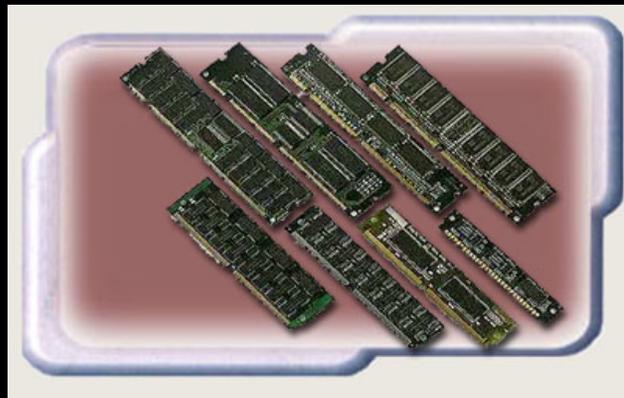
Repeat after me:

“Dual is better”



# MAXimize RAM

Nothing can unclog the congestion of a marginal machine like a giant helping of additional RAM, so get our your Credit Card and surf over to your favorite RAM store.



Your Mac will love you for buying it gifts, and your GarageBand performance will benefit from the extra notes and tracks you will be able to add.



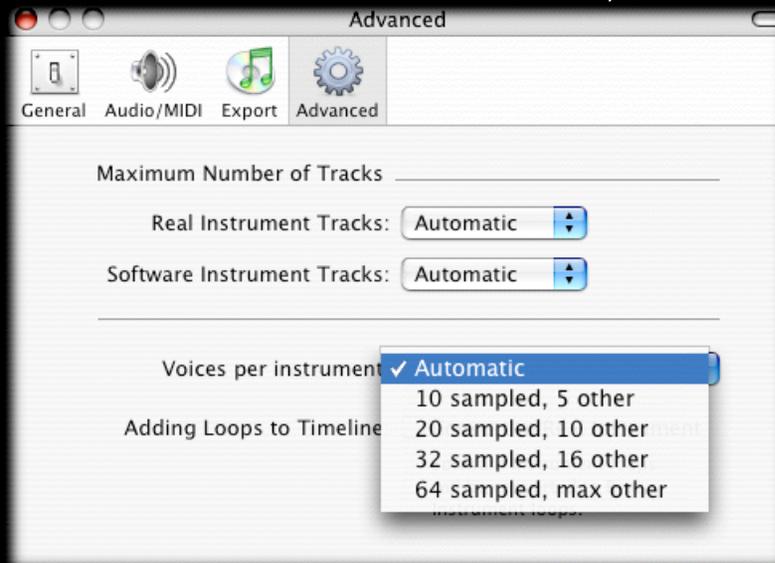
# Minimize the screen size

Drawing all those cool tracks and events takes a bunch of horsepower, which might very well be wasted drawing pretty pix. Shrink the GarageBand screen as much as possible, and the CPU cycles you save can go for smoother playback, more voices etc.



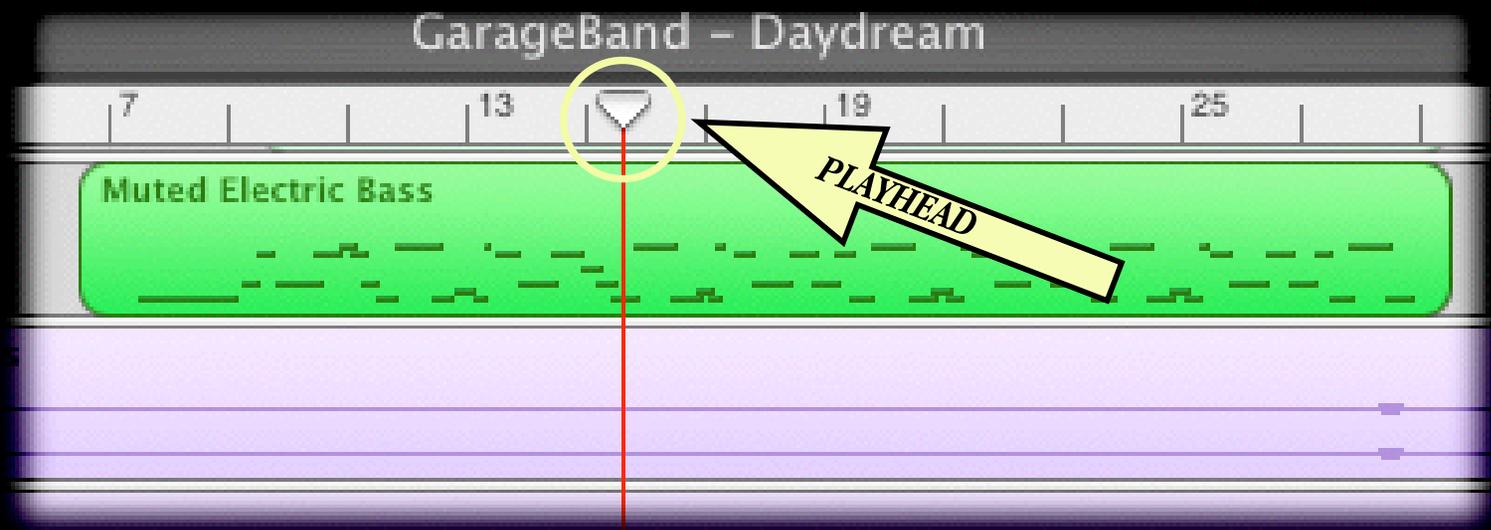
# Minimize voice count

Software instruments also use CPU cycles to play sounds, and the more voices (notes) you play from a track, the more CPU power you use up. If you know you have a track, like a bass line, where you only want to hear one or at most two voices, limit the voice count in Adv. Prefs.



# Watch the Playhead

The harder your Mac is working the more Red your Playhead will become - keep an eye on it, to warn you in case you're heading into the danger zone.





# GarageBand Enhancement Add-Ons

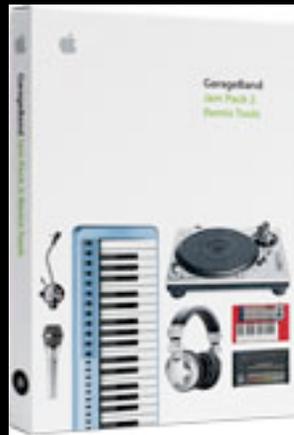


# Add-ons for Sounds

There are a TON of sounds, loops and effects that can be added to GarageBand - don't be boring! Add some!



**Jam Pack 1**



**Jam Pack 2**



**Jam Pack 3**



# Add-ons for more voices

Consider using “Rewire” technology to link Garage Band with Rewired applications like “Reason”



# “Rewire” links programs



“Rewire” can link Garage Band playback with Rewired applications like “Reason”





# Thanks for coming!



enjoy making music  
with  
GarageBand!

FOR MORE INFO...

<http://www.apple.com/garageband>

