

## Studio Vision to Logic Audio Guidebook





## Where Things Are: Audio



### 0.1 Selecting Audio Hardware

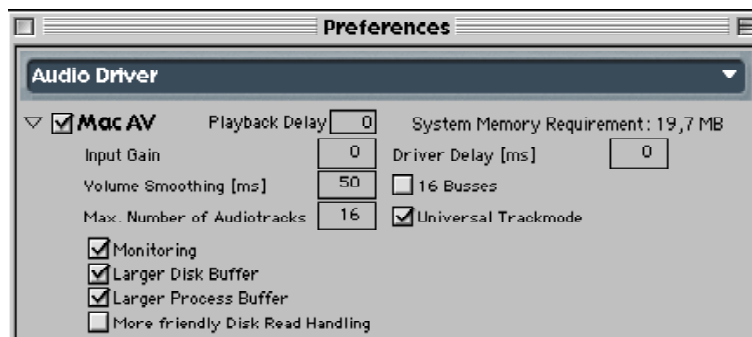
Both Logic Audio and Studio Vision are compatible with multiple types of audio hardware, from Apple's Sound Manager to Digidesign's Pro Tools system. The first task in setting up your system for audio recording is to select which audio hardware you intend to use.

#### Studio Vision

In Studio Vision, this is accessed from the **Audio>Audio System** menu.

#### Logic Audio

In Logic Audio, select **Audio>Audio Hardware and Drivers**. The window that opens allows you to choose which hardware you intend to use. Various options specific to each driver can be viewed by clicking on the flip down "triangle" to the left of each driver name.



### 0.2 Preparing to Record

Certain basic functions must be performed before recording audio; it is necessary to choose where the files are to be recorded, select monitoring options, and designate audio input and output configuration.

#### Studio Vision

In Studio Vision, most of these settings are accessed via the ***Record Monitor Window***.

#### Logic Audio

In Logic Audio, these settings are found in various locations depending on the function:

### Record Path and File Options

#### Studio Vision

In Studio Vision, you set the Record Path by selecting ***New Record File*** from the menu in the ***Record Monitor Window***.

### Logic Audio

To set the record path in Logic Audio, click on the **Set** button in the **Set Audio Record Path** window (**Audio>Audio Record Path**). You are able to select a recording path for both the specific song as well as globally (to a dedicated audio drive)



**NOTE:** Logic always functions like the “*New Takes*” mode in Studio Vision, i.e., it always creates new files with every new recording.

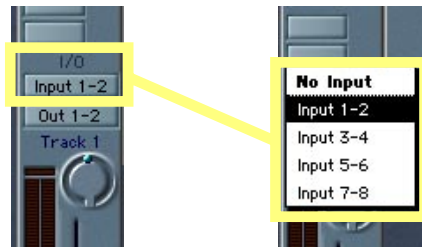
### Input/Output Selection

#### Studio Vision

The input source for Studio Vision is selected under the column labeled **Rec Source** in the **Record Monitor Window**.

#### Logic Audio

In Logic Audio, the input source is selected directly on the audio fader. You simply click-hold on the box under the text **"I/O"** and select from the available inputs listed in the pop-up menu.



Outputs are selected in the same manner; simply click-hold on the box below the inputs box (defaults usually to "Output 1-2") and select from the resulting menu.

### Monitoring Option

Both Logic Audio and Studio Vision allow the user to determine whether or not the input signal is to be monitored, and if so, under what scenario (i.e., during recording only, during play and record, etc.).

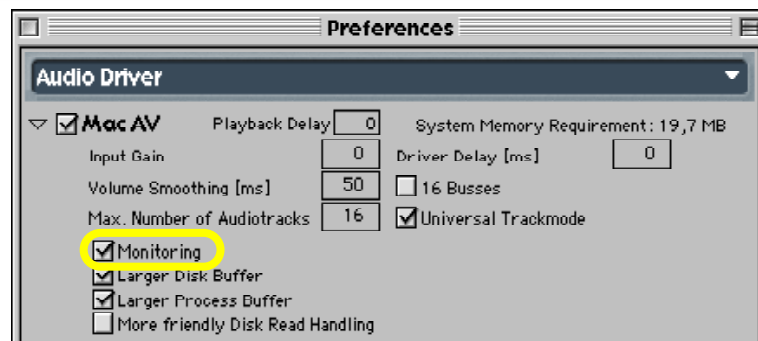
#### Studio Vision

Studio Vision lets you configure these settings from the **Record Monitor Window**.

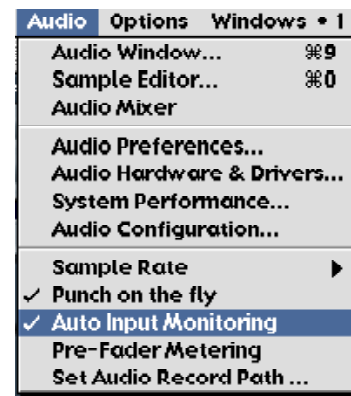
#### Logic Audio

In Logic Audio, there are two places that control monitoring:

1) Open **Audio>Audio Hardware and Drivers** and enable the **Monitoring** option for your hardware.



2) With **Audio>Auto Input Monitoring** enabled, Logic Audio automatically switches between “listening” to the audio input when stopped and in record mode, to playing back existing audio on the track during playback. It does this to allow you to monitor a punch-in on a track with previously recorded audio. This behaves similarly to Studio Vision when the **Thru** setting in the **Record Monitor Window** is set to **Auto**.





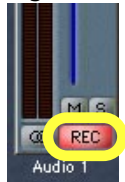
### Record Enabling a Track

#### Studio Vision

Before recording audio in Studio Vision, you must record-enable both the **Rec Source** and the track you're recording to by clicking in the record column

#### Logic Audio

In Logic Audio, you only have to record enable the **Track** object, which you can do either on the fader:



or directly on the track in the **Arrange** window:



### 0.3 Setting the Sample Rate for the Session

#### Studio Vision

Studio Vision lets you set the session sample rate by choosing **Audio>Sample Rate** and choosing from the pop-up menu.

#### Logic Audio

Logic Audio has similar implementation. Select **Audio>Sample Rate** and choose from the options listed (44100, 48000, 88200, 96000) to specify the session sample rate.



### 0.4 Recording

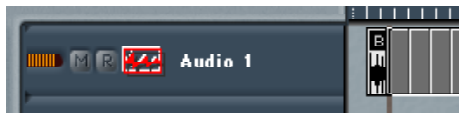
#### Level Monitoring

##### Studio Vision

Level monitoring is shown in the *Record Monitor Window*.

##### Logic Audio

Level monitoring in Logic Audio is shown mainly on the **Audio** faders (accessed either under **Audio>Audio Mixer** or **Windows>Open Track Mixer**) themselves.



In addition, an approximate monitoring level is displayed to the left of the audio track.

As with Vision, input levels need to be controlled at the source.



## Stereo Recording

### Studio Vision

Recording stereo files with Studio Vision is accomplished by checking the stereo button in the **Record Monitor Window**.

### Logic Audio



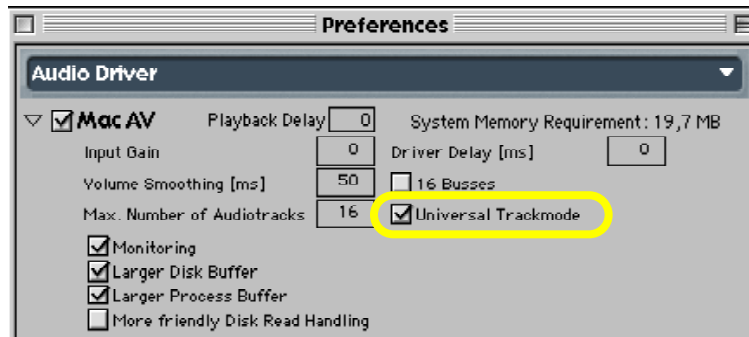
In Logic Audio, stereo recording is enabled by clicking on the button in the lower left corner of the fader. The button will display two concentric circles when in stereo mode, and a single circle when mono mode is engaged.

Once you've made your desired settings and have record-enabled a track, make sure the track is selected in the **Arrange** window and click the **Record** button on the **Transport** (alternatively, you may click on the key command set for "record"). An approximate overview of the waveform will be drawn on your screen as you record.

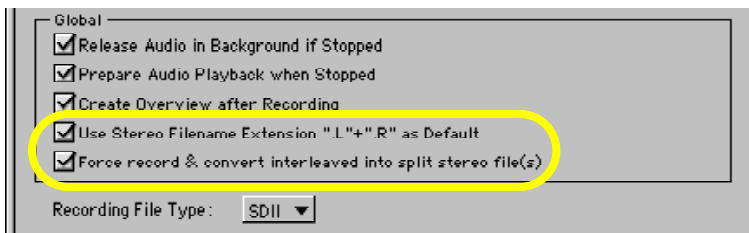
### Split Stereo and Interleaved Stereo

If you wish to record interleaved stereo files (not supported by DAE), first make sure that **Universal Track Mode** is enabled within the **Audio Hardware and Drivers** window (under the **Audio** menu) under your hardware choice.

If this is not selected, the files will be recorded as a pair of linked mono files with the extensions (L) and (R).



**NOTE:** For compatibility with DAE (ProTools) hardware, in addition to having **Universal Track Mode** disabled, it is also recommended that you have **Use Filename Extension ".L" + ".R" as Default** enabled under **Audio>Audio Preferences** to be compatible with the ProTools stereo file extensions. When converting from a song with interleaved stereo files to a split stereo file format, also turn **Force record & convert interleaved into split stereo file(s)** on within this window, which will enable Logic to convert the interleaved files upon importing in the **Audio** window.



### Record Modes

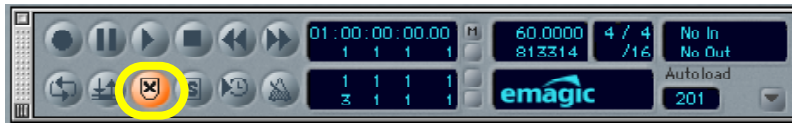
Both Logic Audio and Studio Vision have the option of Replace and Overdub record modes.

#### Studio Vision

In Studio Vision, this option is selected from a flip menu in the upper left corner of the transport.

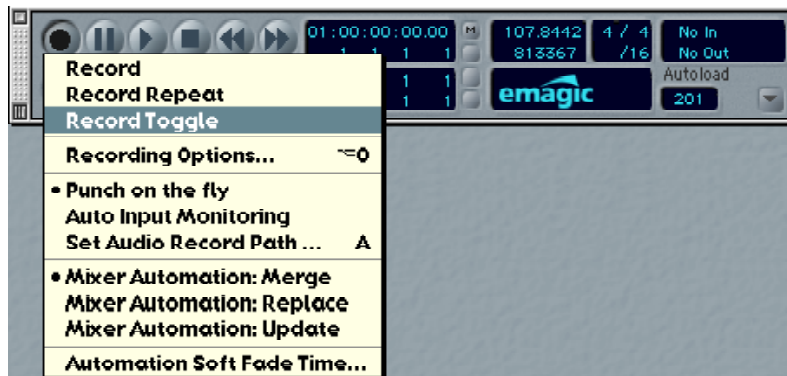
#### Logic Audio

In Logic Audio, toggling between these two modes is accomplished by the **Replace** button on the **Transport**. **Replace** mode is enabled when the button is “on”.



When Logic Audio is in **Replace** mode, it creates a new region or sequence from the point of initiating recording to the point at which recording is disengaged or the sequencer is stopped (**Autodrop** and punching in works especially well in this mode). The result will be the creation of new regions or sequences for the original track that butt up against the newly added recording. If **Replace** mode is disengaged, the new recording will be on top of the original, and can be dragged to another track without effecting the original (a separate track for the new recording can be easily created by selecting **Functions>Track>Create for Overlapped Objects** in the **Arrange** window).

In addition to the **Replace** mode, Logic Audio offers additional modes for recording that you might find useful, all of which can be accessed via key commands or by clicking and holding on the record button in the **Transport**.



**Record Repeat** will automatically take the recording back to the start point at which you started recording the first take, without having to set the locators.

**Record Toggle** is a very useful mode, which provides two separate functions. The first is to put Logic Audio into a record mode while paused. When this is activated, Logic Audio will function in a “record pause” mode, listening for any MIDI input and writing the data to the location of the **Song Position Line**. This is especially useful for writing in volume, pan, and patch change settings at any given location.

The second function that **Record Toggle** accomplishes is an instantaneous way of engaging record while performing a manual punch in. Please see the following section, *Punching In and Out*, for more information.

### Punching In and Out

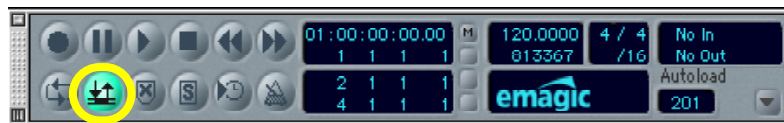
Both Studio Vision and Logic Audio offer automatic punching in and out.

#### Studio Vision

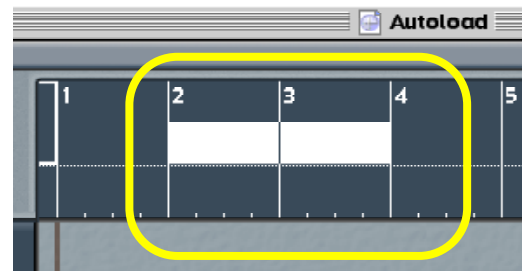
Studio Vision lets you set **Punch Points** by using the key commands "[" and "]". It is then necessary to turn the punch function on or off.

#### Logic Audio

Logic Audio works similarly. First click on the **Autodrop** button which will enable a graphic representation of the punch in/out region in the ruler on the top of the **Arrange** window.

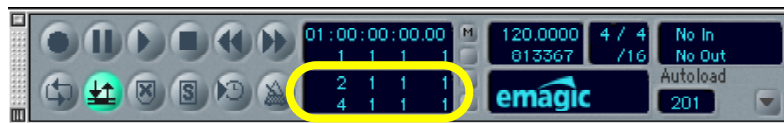


You can change the punch range by click-holding on the lower left and right corners of the highlighted bar and dragging.

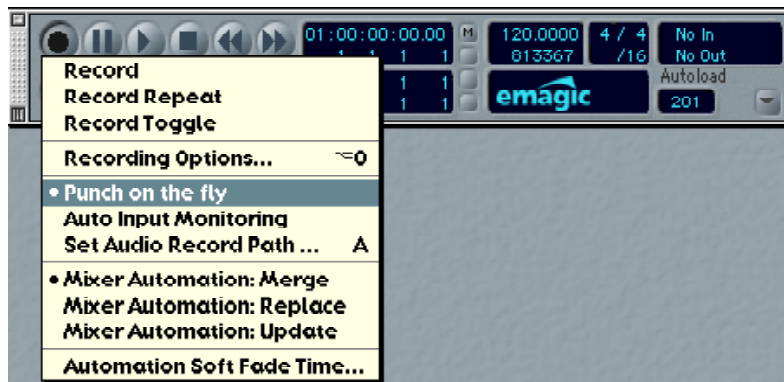




These in and out points can also be easily set by key command (*Set Left Autodrop Point by Song Position*, *Set Right Autodrop Point by Song Position*) or by changing the **Left/Right Locators** setting in the **Transport** (this will also work for setting Loop or **Cycle** points).



Logic Audio also lets you instantaneously “punch in on the fly” as the song is playing. This is done by engaging the **Record Toggle** mode while Logic Audio is playing (assigning this to a key command is the best way to utilize this mode quickly). Make sure that **Punch in on the fly** is activated in the Record menu (click and hold on the Record button in the **Transport**).



### 0.5 Importing Audio Files

#### Studio Vision

In Studio Vision, audio files are imported either by selecting **Audio>Import Audio**, or by selecting **Insert Events>Digital Audio** from the **List Window**.

#### Logic Audio

In Logic Audio, there are three ways to import an audio file:

1. Selecting **File>Add Audio file** from the **Audio** window
2. Drag and Dropping files from a Finder window into the **Audio** window
3. Shift-clicking with the **Pencil** tool in the **Arrange** window



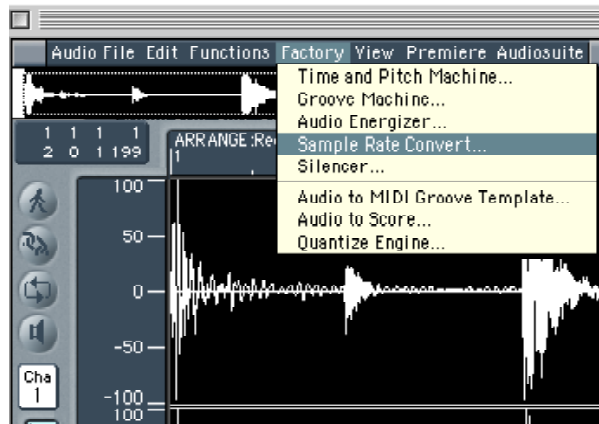
### 0.6 Sample Rate Conversion

#### Studio Vision

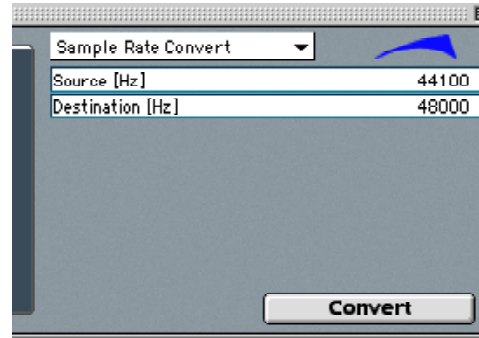
Sample rate conversion in Studio Vision is handled off-line by choosing the **DSP>Convert Sample Rate** command.

#### Logic Audio

Logic Audio's **Sample Rate Convert** function is located within the **Sample Editor** window under the **Factory** menu.



The **Source** setting should reflect the sample rate at which your audio hardware is set. Simply type in the destination sample rate in Hz (i.e. 48kHz = 48000Hz, 44.1kHz = 44100Hz) within the **Destination** box and click on the **Convert** button.



### 0.7 Strip Silence

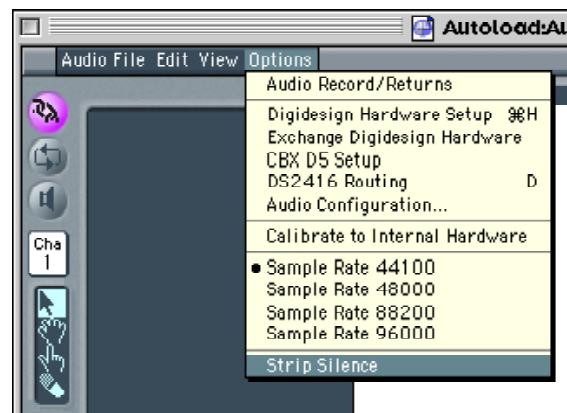
Both Logic Audio and Studio Vision can automatically gate digital audio through the Strip Silence feature.

#### Studio Vision

In Studio Vision, this is done by choosing **Audio>Strip Silence**. In the dialog box that follows, you can set the various parameters to effect the audio below a chosen threshold for as long or longer than the chosen duration.

#### Logic Audio

Logic Audio approaches this in a similar manner. **Strip Silence** is found in the **Audio** Window under the **Options** menu. Select the audio region that you want to perform the function on and then choose the **Strip Silence** command.



### Where Things Are

The **Strip Silence** dialog box that then appears will display the audio waveform representation, and will change interactively when you adjust the parameters. The parameters are equivalent in function to the ones found in Studio Vision.



### 0.8 Bouncing to Disk

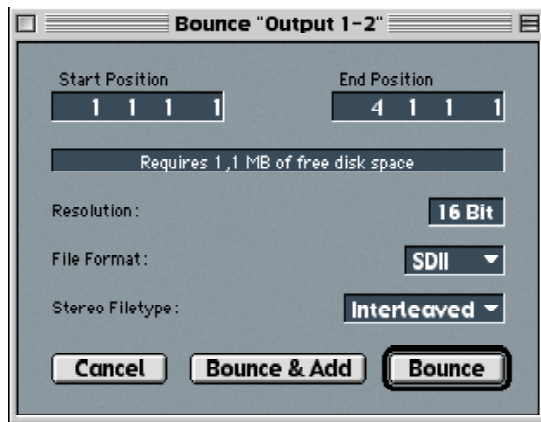
This useful feature of mixing down audio tracks to a mono or stereo file is implemented slightly differently in both programs.

#### Studio Vision

Studio Vision performs bouncing by choosing **Audio>Mix Audio**.

#### Logic Audio

Logic Audio handles bouncing directly through its **Audio Mixer**. The **Master** faders (one for each stereo pair of outputs of your audio interface) each have a **"Bnce"** button in the lower right corner, which will create a mix down of all audio passing through that audio output (output setting is located on each fader). This includes all automation, DSP, and volume and pan settings.



Once the **"Bnce"** button is pressed, a dialog box will appear with the bounce options. Here you can choose the range that will be bounced (this corresponds to the **Left and Right Locators**, which can easily be set before the bounce is performed), bit rate, and stereo or mono file type. When creating a master to burn to CD, it is usually necessary to create an interleaved stereo file. The choices **"Bounce"**, and **"Bounce and Add"** correspond to whether or not you want Logic to import the mix back into the song's **Audio** window for further editing.





## Where Things Are: MIDI



### 0.9 MIDI Thru

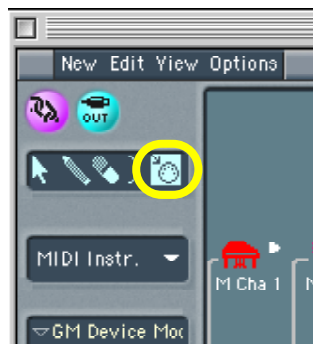
The term “MIDI Thru” is generally used in sequencers to refer to the port and channel where incoming MIDI data will be directed upon output. In other words, it determines which MIDI keyboard or sound module will sound when you play your MIDI controller.

#### Studio Vision

The MIDI Thru instrument is set in Studio Vision via a flip menu on the **Control Bar**, or by record-enabling a MIDI track. In the latter case, the instrument assigned to the record-enabled track will automatically become the selected instrument in the **Control Bar's** MIDI Thru menu.

#### Logic Audio

The MIDI Thru functionality in Logic Audio is similar to Studio Vision; MIDI Thru is automatically enabled for the instrument assigned to the record-enabled MIDI track(s). Changing the MIDI Thru instrument is as simple as clicking on a track, or assigning a new instrument to the currently selected track.



**NOTE:** You can also change the Thru instrument from the **Environment** window by clicking on an **Environment** instrument with the **MIDI Thru Tool**.

**Warning!** This functions by assigning the instrument to the currently selected track in the **Arrange** window, so be careful not to inadvertently change the instrument assigned to a previously created track.

### 0.10 Position Indicator

#### Studio Vision

Studio Vision lets you keep track of your position via the **Counter**, which displays in Bars • Beats • Units, as well as SMPTE time.

#### Logic Audio

Logic Audio uses a slightly different way of approaching this; the display is quite similar, with an added indicator: Bars • Beats • Subdivisions • Ticks. The Subdivisions indicator is a moveable indicator, depending on the subdivision or **Global Format** setting in the **Transport**. The default is **"/16"** which corresponds to 16th notes. This setting can be changed at any time, giving you a flexible grid to snap events to (see *Cursor Quantize*, under *0.5 Quantization*) and use for step recording (see next section, *0.3 Recording MIDI*).



Logic Audio will always let you know where an event, region or sequence is on the time line by displaying it in the **Transport** as Bars • Beats • Subdivisions • Ticks and SMPTE time. Even if the **Transport** is not showing, Logic

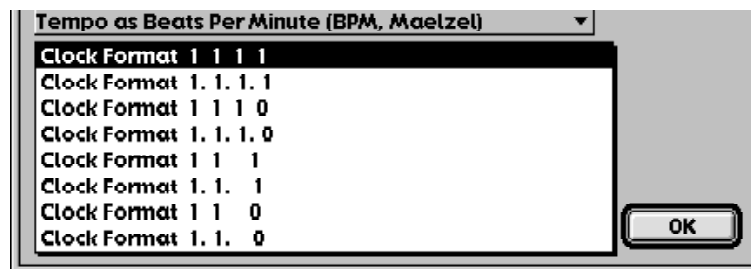
Audio always displays an **Info Line** on the top of any window when click-holding on an object, which displays position and length even while moving the object.

Like many things that Logic Audio, the position display can be customized to not show subdivisions, and other display configurations. These are accessed under **Options>Settings>Display Preferences**.

## Where Things Are

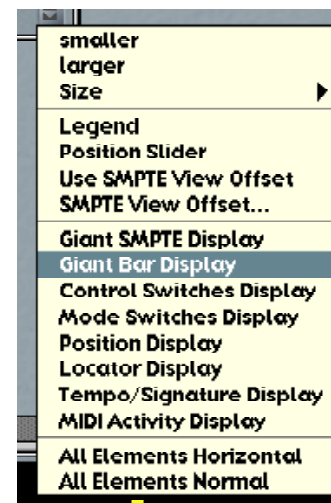
You can actually choose to display similarly to Studio Vision (without subdivisions) by selecting:

"Clock Format 1 1 1" from this pop-up menu (Bars • Beats • Ticks).



The **Transport** can also be customized to display a giant SMPTE or Bars/Beats counter (and a whole lot more!). Click and hold on the pop-up menu in the lower right corner of the **Transport** to view these options.

Remember that Logic Audio lets you open multiple copies of the same window, so you could open three different **Transport** windows, one displaying a giant SMPTE display, one a giant Bars display, and one a regular **Transport**.



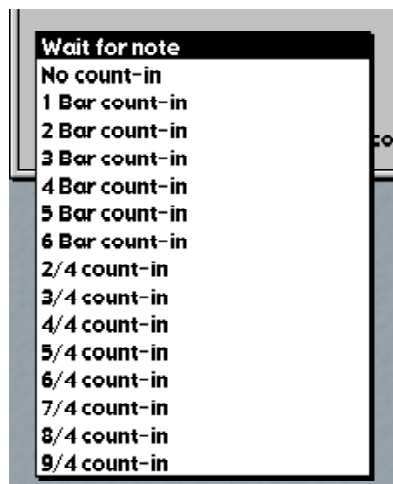
### 0.11 Recording MIDI

#### Setting a Count-off

##### Studio Vision

In Studio Vision, you select the ***Begin Record Toggle*** option to wait for note or use a “count-off.”

##### Logic Audio



In Logic Audio, you also have the choice of having the sequencer waiting for a note to begin recording, or setting a variety of count-in choices. These settings are accessible from the ***Recording Options*** window (***Options>Settings>Recording Options***). At the bottom of the window you will see a pop-up menu that you can click-hold on to see all of your count-in choices.

### Real-time Recording

#### Studio Vision

In Studio Vision, you need to record-enable a track by clicking in the **Record Column**.

#### Logic Audio

As mentioned under the above section *0.1 MIDI Thru*, Logic Audio automatically record-enables a MIDI track when it is hi-lighted (click once on the track, or scroll through using key commands). Once the correct MIDI track is selected, it is just a matter of hitting record on the **Transport** to begin recording. Logic Audio will not write any MIDI data until you begin playing.

### Step Recording

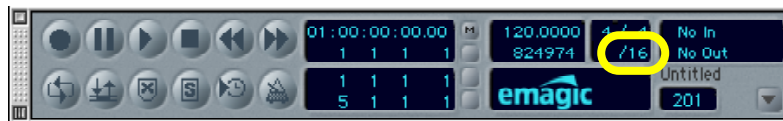
#### Studio Vision

Studio Vision uses a **Step Record** window to choose the appropriate parameters determining the size, duration, and velocity of the note you want to record. Each time a note or chord is created you need to access this window.

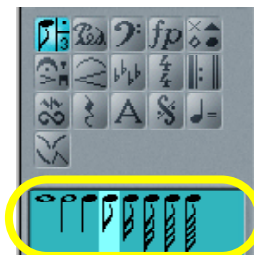
### Logic Audio

In Logic Audio, step recording can be enabled from any editor (**Score**, **Event List**, **Matrix**) by clicking the “In” button. With this enabled, Logic Audio will sense any MIDI note input from the controller.

The velocity of the note written is determined by direct correlation with how the controller is struck. The duration of the note is determined by the subdivision (**Global Format**) setting, which can be changed by click-holding on the small division window in the **Matrix Editor**, **Event List** or **Transport**, and moving the mouse up or down. All of the above can be easily selected by using key commands “Set Next Higher/Lower Format.” [



The **Score Editor** approaches this a little differently. The duration value is set selecting the appropriate note value in the palette. There are also key commands available to do this.



### 0.12 Changing What's Viewed in Edit Windows

#### Studio Vision

Changing what is being viewed in an **Edit** window is done via the **Sequence** or **Track Select** pop-up menu that opens when you *Option-Click* the title bar of the window.

#### Logic Audio

Logic Audio's edit windows can display the contents of any selected sequence by enabling the **Show Contents Mode** in the given edit window. This in effect forms a display "link" between the editor and whatever sequence is selected in the **Arrange** window, causing the editor display to change if another sequence is selected. You enable the **Show Contents Mode** by double clicking the chain icon in the upper left of any of the edit windows (it will turn yellow).



Another method available in most edit windows (**Matrix**, **Event**, **Hyper**, and **Score** windows) is to 'collapse' the existing view so that you see all available sequences, and then double click on a given sequence to view its contents. You 'collapse' a window by clicking the small grey box icon in the upper left of the window. In some windows (**Matrix**, **Score**, and **Event**) you can also collapse the view by double clicking in background area, i.e., not on a MIDI event. The exact behavior of this functionality varies from window to window. Here is an brief description of how each window behaves once "collapsed":



**Event** All the sequences (or folders) that exist at the **Arrange** view level show up in the list. Double-clicking on the name of any of these will open it, i.e., will take you to the event level view for that sequence.

**Matrix** The notes of all sequences will come into view. Double-clicking on any single note will take you into the sequence that contains that note.

*NOTE:* If you wish to have *only* the sequences displayed that are highlighted in the **Arrange** window, select **View>Show Selected Sequences Only**.

**Score** All sequences will be displayed as multiple staves. Double-clicking the staff lines of a given staff will take you into that sequence.

**Hyper Edit** The window goes to an “**Arrange View**” mode, i.e., it appears just like an **Arrange** window. Double-clicking any sequence takes you back to the normal **Hyper Edit** view displaying the events for that sequence.

### 0.13 Quantizing

#### General

##### Studio Vision

Studio Vision delineates between two types of quantizing: **Play Quantize** and **Edit Quantize**. **Play Quantize** is non-destructive while **Edit Quantize** is destructive.

The **Play Quantize** settings for each track are accessed on the bottom border of the **Tracks** window. The **Edit Quantize** settings are found in the **Quantize Window**.

##### Logic Audio

Quantizing is always non-destructive unless you decide to make it permanent

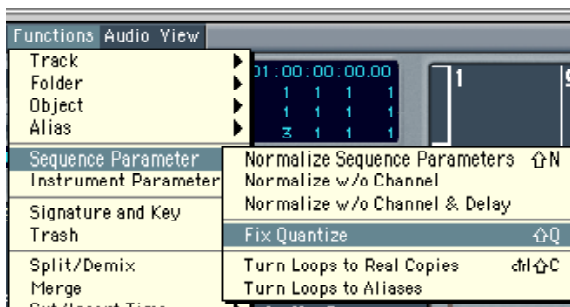


In the **Arrange** window, quantize settings are found in the **Sequence Parameter box** ("**Qua**" setting) which resides in a column along the left. If this column is not visible, enable **View > Parameters** from the **Arrange** window's local menu.



Note that these settings apply to sequences, not to whole tracks, which allows for different sections in a track to have different quantize settings. More advanced quantize options such as **Quantize Strength**, **Quantize Percentage**, etc. are found in the **Extended Quantize Parameters (Options>Extended Sequence Parameters)**.

**NOTE:** If you wish to make any of the **Sequence Parameter** settings permanent, i.e., to apply them destructively to the events, select one of the **Normalize** options found under **Function > Sequence Parameter** in the **Arrange** window.



You can also apply Quantize to a selection of events within the **Event** or **Matrix** windows by selecting a value from the Quantize button flip menu found in the left column.

### Groove Quantize

Groove quantize refers to quantizing one track to the note positions of another track.

#### Studio Vision

Groove Quantize can only be applied from the **Quantize Window** and is always destructive. Once you've chosen **Groove** as the **Quantize Type**, you then select a groove sequence via the button labeled **Grv**. The Groove sequences available in this list are determined by what is contained within a special **Vision Grooves** folder. If you want to apply the "groove" of a track within the song you're working in, you must first paste a copy of that sequence into the **Vision Grooves** folder.

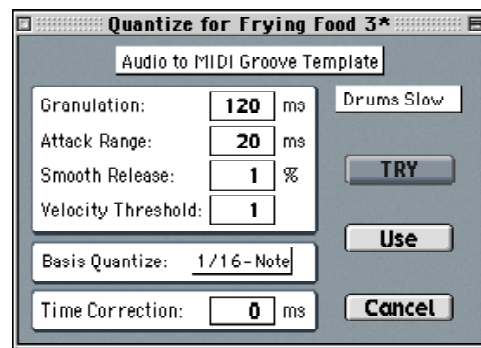
#### Logic Audio

Groove Quantize is applied in exactly the same way you that you apply the other quantize options, i.e., it is simply selected from the Quantize flip menu. To create a Groove Quantize from an existing sequence:

4. Select the sequence from which you wish to make a Groove Quantize
5. Select **Options > Groove Templates > Make Groove Template**

The new Groove Quantize will be named according to the name of the sequence it was created from and will appear in the normal quantize options list.

You may also create a Groove Quantize (or Groove Template) from an audio file to apply to your MIDI sequences. To do this, you must first enter the **Sample Editor** for the audio region from which you want to make a template. Choose **Factory>Audio to MIDI Groove Template** and adjust the parameters to achieve satisfactory results.



## Quantizing on Input

### Studio Vision

Quantizing on input is selected within the Quantize Window.

### Logic Audio

Any settings defined in the **Sequence Parameter box** with no sequences selected will be applied upon input. If nothing is selected, the top of the **Sequence Parameter Box** will read **MIDI THRU**. Simply put, to quantize on input, de-select all sequences in the **Arrange** window by clicking on the background, (not on a sequence) and choose the quantize value desired.

### Cursor Quantize

#### Studio Vision

Studio Vision has an option called **Cursor Quantize** which allows you to change the resolution of cursor movements, i.e., set a snap grid for all selections and edits.

#### Logic Audio

Logic Audio does not have an equivalent setting because it handles this function differently. Logic Audio's cursor movement defaults to snapping to a grid which can be defeated "on the fly" using modifier keys. The modifier keys, which are the *Control* key, and then the *Control + Shift* keys, set the quantize resolution to the next smallest increment. In the **Arrange** window, the value of the initial quantize grid is based on the zoom level.

For example, if the smaller marks shown in the bar ruler is zoomed such that it represent beats, movements will initially snap to that value. If you hold the *Control* key down while making the change however, the movements will snap to the subdivision (sometimes referred to in LA as the '**Global Format**') of the beat. Holding the *Control + Shift* key allows you to move by the smallest value: ticks. This function works similarly when you are moving or adjusting the length of notes in **Matrix** window. When in the **Matrix** however, the initial quantize grid is subdivisions of the beat. Holding the *Control* key allows you to move by ticks.

**NOTE:** to ensure that you are enabling this mode, hold the modifier keys down *after* click-holding the mouse button to make the edit.

### Quantizing for Notation

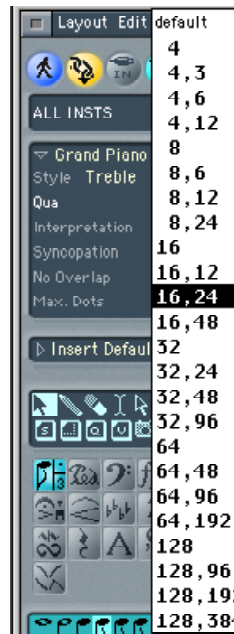
Both Studio Vision and Logic Audio offer a degree of independence between a performance and how it appears as notation. Logic Audio lets you keep all of the nuances of the original MIDI performance, while letting you adjust the visual aspects of the score to accurately correspond in notation. One of the most important aspects to creating this display is through choosing the correct notation quantization.

### Studio Vision

In Studio Vision, the primary way to change the visual quantization is to adjust the **Notation Resolution**, which is found in the top corner of the score window.

### Logic Audio

Logic Audio setting appears similar to the quantization controls in other windows. The top **Parameter Box** on the left side of the screen contains a “**Qua**” setting which can be click-held for a large variety of quantization factors, including tuplets and fine resolutions.



### 0.14 Building a Console

Both programs can build custom consoles displaying both Audio and MIDI tracks.

#### Studio Vision

To do this with Studio Vision, first select the **Build Console From** command to produce a submenu of options. The **Selected Track Instruments** command automatically builds a console of the selected audio and MIDI tracks.

#### Logic Audio

The same can be done with Logic Audio's adaptive **Track Mixer**. This window can be accessed at any time by choosing **Windows>Open Track Mixer**. Logic Audio will automatically build a console containing all tracks that are utilized in the track list. This acts dynamically, and will eliminate and add strips when you add or delete tracks.

### 0.15 Slaving to External Sync (MIDI Clock or MIDI Time Code)

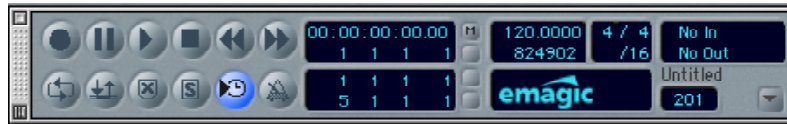
#### Studio Vision

Switching between the available Sync options is performed from the **Control Bar**. The menu allows you to select either **Internal**, **External** or **Timecode**. You designate the port from which to receive the data by selecting **Options > Rec. Sync Device**. When syncing to SMPTE you select the format under **Options > SMPTE Format**.

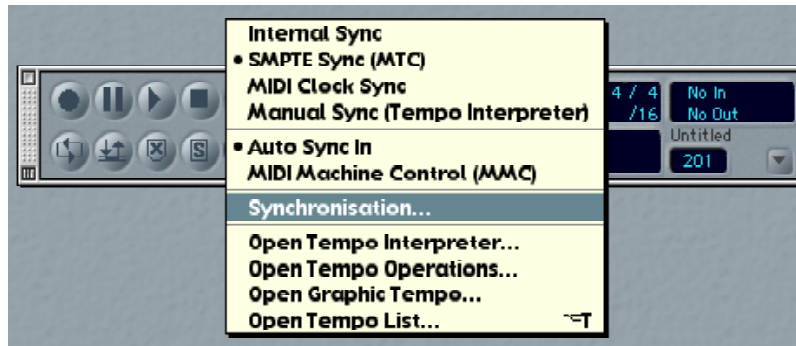
#### Logic Audio

Due to Logic Audio's **Auto Sync-In** feature, selecting the Sync option is generally not necessary. Click-hold on the Clock button on the **Transport** bar to see if this option is enabled in the pop-up menu. When this feature is enabled, Logic Audio's ruler display and Clock button on the **Transport** will turn blue, and immediately sync to any incoming timecode or MIDI clock signal.



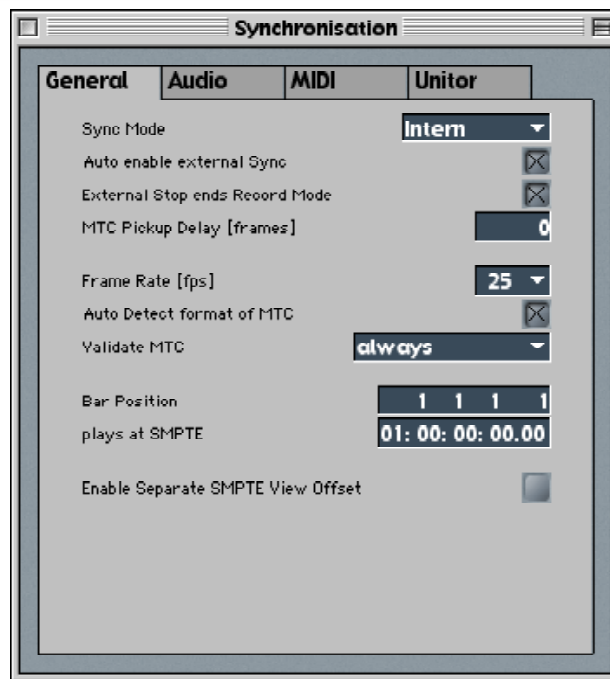


The receive port also does not have to be defined, as Logic Audio defaults to being set to receive all incoming data.



SMPT E Format and other settings are accessed from the **Synchronization** window (accessed from the same menu referred to above). You may also access this window by selecting; **Options > Settings > Synchronization Settings**

The SMPTE settings (such as frame rate and start time) are shown under the **General** tab.



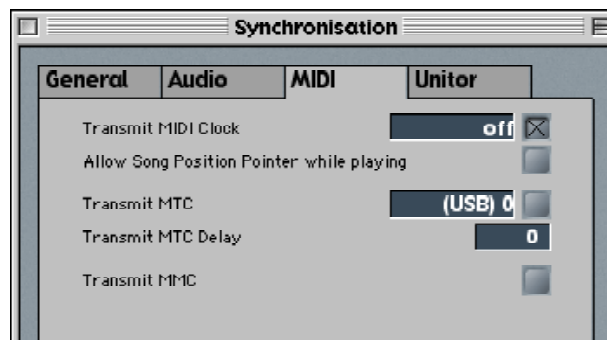
### 0.16 Transmitting MTC or MIDI Clock

#### Studio Vision

These options are set in the **Options > Send Sync** menu.

#### Logic Audio

These options are accessed in the manner shown above (click-hold on Clock button or **Options > Settings > Synchronization Settings**). Once this window is open, click on the MIDI tab. Settings for the sync type, format and MIDI output are all accessible from this location.





## Glossary





Studio Vision	Logic Audio
Audio Instruments	Audio Objects
<p>Software device which accesses the audio hardware and handles audio routing and voice assignment.</p> <p>NOTE: Logic does not have an assignable voice architecture like Studio Vision. Instead, there is an audio track available for each 'voice', i.e., if the hardware and system can provide 24 "voices" (24 simultaneous audio streams), then Logic will provide up to 24 tracks - each with its own Audio Object.</p>	
Tracks Window	Arrange Window
<p>General overview and primary edit window. This functions as a macro level view of data, letting you arrange and manipulate data for the entire song from one window.</p>	
Tracks	Tracks
<p>Numbered positions where audio and midi is recorded. In Studio Vision, these tracks are occupied by Blocks and Audio Events; in Logic Audio, they contain Sequences and Audio Regions.</p>	

Studio Vision	Logic Audio
Audio Event	Audio Region
Reference to an entire audio file or portion thereof residing on the hard drive. There can be as many references to these audio files as you wish, each with their own editable start and end point. These appear as rectangular segments, usually with a graphic waveform display. All edits to these portions are non-destructive, but all edits to the referenced audio files will effect every region/event that links to them.	
Sequences	Folders
Organizational units which contain multiple audio regions/events and/or MIDI sequences/blocks. These are commonly used to create groups of track data that can be edited/effected all at once.	
Subsequences	No exact equivalent
Another organizational unit with no exact equivalent in Logic Audio. Logic Audio's Folders function similarly as Subsequences, but with the main difference of not having a unique tempo list, key signatures, time signatures, etc. that can be assigned to them.	



Studio Vision	Logic Audio
Graphic Window	Matrix Window
“Piano roll” style viewing and editing of MIDI notes and data. Both display MIDI data as events on a horizontal time line, with pitch expressed vertically. Usually the display will have a piano-style keyboard on the left to reference pitch.	
List Window	Event List Window
List view of MIDI data by position, length or type. The display is expressed as data instead of graphically.	
Strip Chart	HyperEdit and HyperDraw
Ways to edit controllers and other MIDI data graphically. Logic Audio’s HyperDraw applies directly to any sequence, region, or within the various editors. Dynamic control can be achieved by drawing in graphic curves or shapes. Logic Audio’s HyperEdit window approaches graphical editing via a separate editor that can be configured to show custom or selected sets of data.	

Studio Vision	Logic Audio
Units	Ticks
<p>Studio Vision uses a 480 pulses-per-quarter note (ppq) resolution, expressed in Units. This is the smallest division of a resolution “grid” where an event can be placed on the time line.</p> <p>The resolution “grid” of Logic Audio is 960 pulses-per-quarter note (ppq), and uses MIDI Ticks to express this resolution.</p>	
Locator	Marker
<p>Locators and Markers can be set to jump to specified sections within your song.</p> <p>Studio Vision writes 8 locators to numbers 1-8. Logic Audio gives you practically unlimited Marker locations which can be accessed and set through assignable key commands.</p>	

Studio Vision	Logic Audio
In and Out Points	Left and Right Locators
<p>These are used to create loop points as well as setting up punching in and out.</p> <p>Logic Audio also uses these locators for editing, selection, and indication of the amount of bars for tempo reclocking. Logic Audio can have independent auto drop locators for punching in at a different point within a cycle (loop).</p>	
File Management	Audio Window
<p>Both windows let you keep track of and see information on the referenced audio files for the individual song. Both let you see how much of the audio file is being used by the song, how many regions access it, the sample rate, the length and other pertinent information.</p> <p>Logic Audio displays the audio waveform to visually gauge which portions are actually being used and where the sync point is. Logic Audio also lets you view any region in the sample editor for closer inspection by double-clicking directly on the waveform.</p>	

Studio Vision	Logic Audio
Auto Compacting	Optimize File
A common practice to save hard disk space. This operation keeps only the audio region data that is used within the arrangement. In effect, the software will re-record the audio with only the used audio regions, and permanently delete the rest.	
Loop	Cycle
A mode enabling a specified section to be repeated. This is especially useful for repeating a section while recording new takes.	
Punch Points	Autodrop
Specified points at which the software will automatically punch in/out. Both can be set up via key command. Logic Audio can set up independent Cycle and Autodrop regions to punch in only during a section of the looping section.	