

Working with Pro Tools® and the Lavry Latency Killer™

Pro Tools® and some other recording programs may not have the facility to disable the input monitoring of a track while in Record, to prevent the “live” input from being heard through the software’s stereo mix. Because the live inputs and the stereo mix are monitored through the LK-1; input monitoring through the recording software must be disabled to avoid hearing a “flange” or “echo” effect when the two signals are combined in the LK-1 headphone cue mix.

The following procedure will use Pro Tools as an example. If you are using different software that does not have the facility to disable input monitoring during recording, there may be some minor differences such as keyboard shortcuts or menu selections; but the basic procedure would be similar.

There are two possible approaches to addressing this issue:

- 1.) The “manual” approach which requires an engineer who is not performing as a musician on the record/overdub tracks.
- 2.) The “single person” approach; which requires some basic editing between takes. This approach does offer more control over the timing and the manner in which the previously recorded tracks are muted, and can also be used even if there is an engineer at the controls. For example; the playback of the previously recorded segment can be faded as versus instantly muting at punch-in. In some cases; the performer may find this less distracting than an instantaneous mute.

Using this approach with an engineer allows recording to be enabled prior to the designated “punch-in point” without the performer being aware of it, because the playback will continue until it is muted instead of always muting at punch-in. This means additional material can be recorded in advance of the designated punch-in point without distracting the artist, allowing flexibility in the placement of the final edit.

(1) Recording with an engineer-

This approach uses the same track to playback and record. In ProTools “Input Only Monitoring” is *not* enabled, so that playback of the previously recorded segments can be heard prior to punch-in.

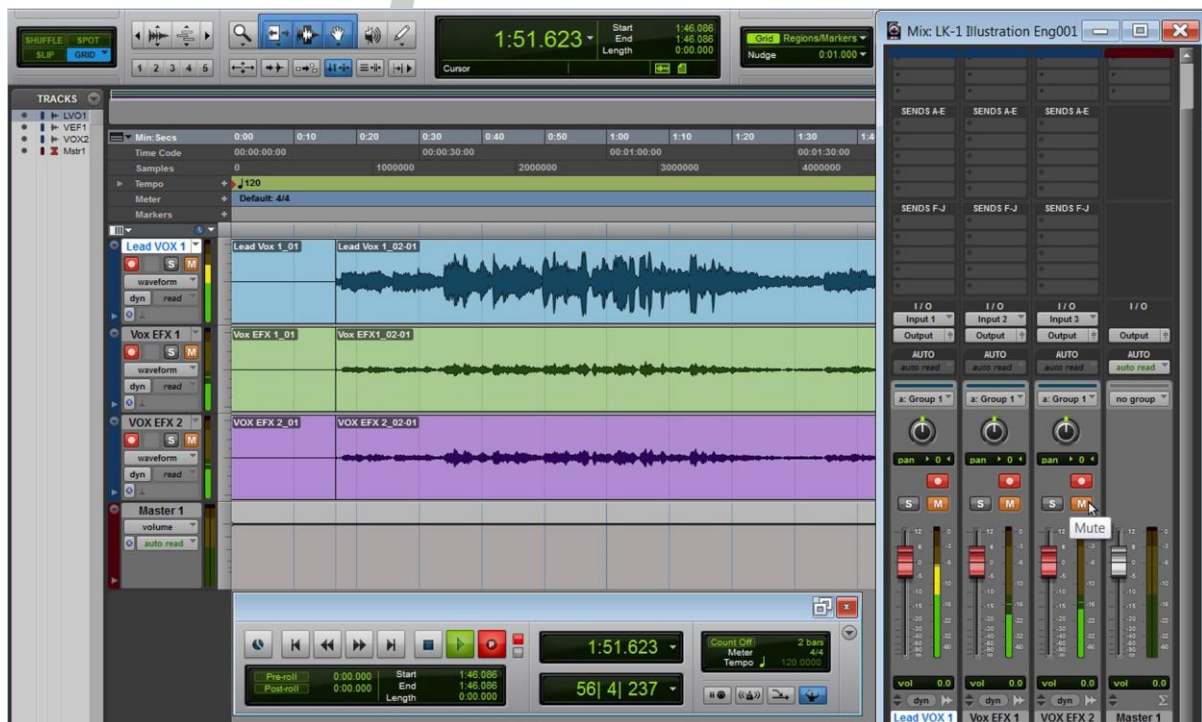
The basic issue is that monitoring of the recording track (or tracks) must end at the punch-in point so the performer does not hear the “live input” through the software mixer at the same time as the “live” sound coming through the LK-1. By manually clicking on the track Mute button at the punch-in point, this can be accomplished. For multiple tracks, grouping can be used so that all recording tracks mute at the same time.

Using the keyboard shortcut to punch-in (F12 with “QuickPunch” enabled), or using looping to automate punch-in/punch-out allows the engineer to click on the Mute button with the mouse at the punch-in point.

Diagram 1 shows the setup for recording with an engineer of one new vocal track and two effects tracks using the LK-1 Loop Outputs. The three tracks are grouped and set to Mute during recording of the initial segment (“Region”).

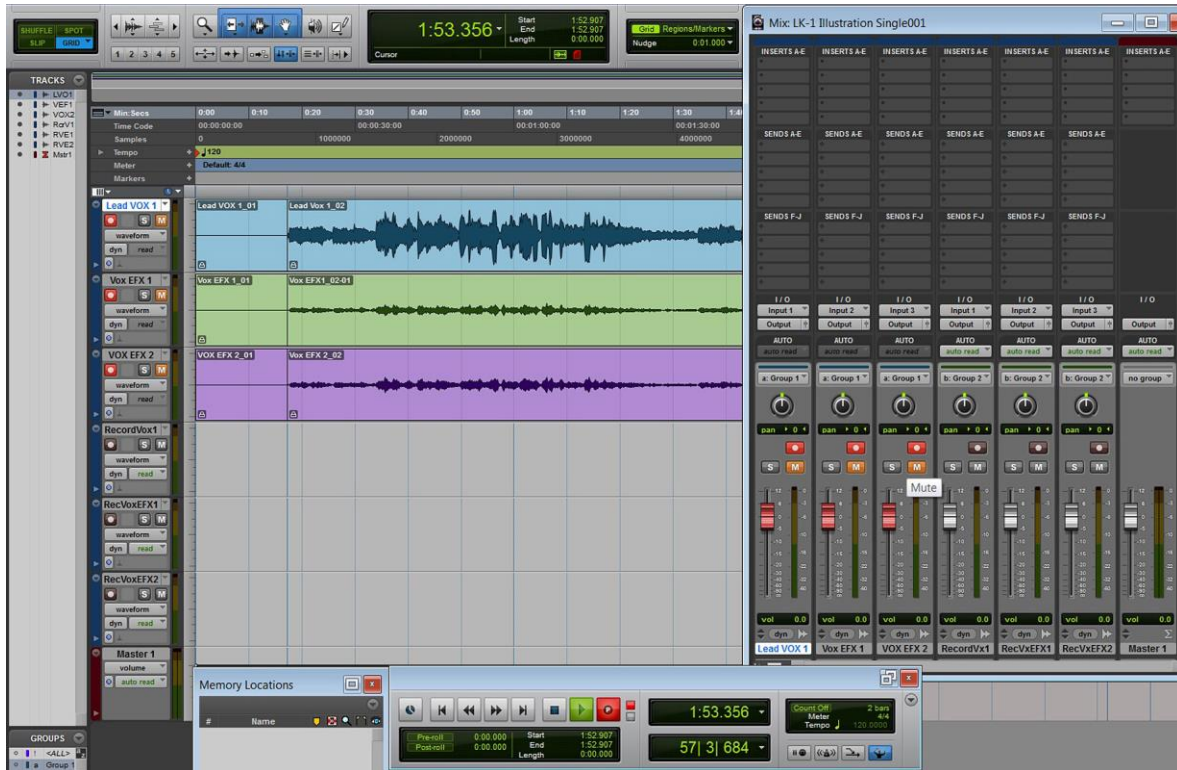


Diagram 2 shows these segments during record with the Mute enabled. After recording of the initial segments is complete, these channels will remain un-muted during playback of the previous take prior to punch-in. The cursor is positioned near the Mute button so it can be clicked with the mouse at the punch-in point. Recording is started by using F12 in QuickPunch mode or via Loop Recording.



(2) Single person recording- This solution uses two tracks for each signal, so that the playback of previously recorded material comes from the first track and the new material is recorded on the second track. This allows the first track to be set up to play back and the second track to be muted during recording.

Diagram 3 shows the setup to record the initial segment on the “playback” tracks. These tracks are set to Mute prior to recording. The “record” tracks are located below the playback tracks, and have the same sequence of inputs assigned to them as the playback tracks.



Grouping the playback and record tracks in this manner allows group selection of the newly recorded tracks for trimming, or moving them to the playback tracks. Using this approach is faster than operating on each track individually, and it lessens the chance of errors caused by differences between the tracks during trimming or movement.

It is also possible to simply use the first set of tracks for playback *only*, by making the initial recording on the “record” set of tracks. This may be conceptually easier, but does require moving the first set of newly recorded segments to the playback tracks before further recording can begin.

Diagram 4 shows recording of the initial segments using this approach. Note how the playback tracks are *not* muted and the record tracks *are* muted. An alternative is to set the record tracks’ faders to “minus infinity,” which will prevent them from being affected by global mute or solo functions.



Once the initial segments are located on the playback tracks, recording of subsequent segments can be enabled prior to the designated “punch-in point” without the performer hearing any change in the headphone cue mix, because the playback will continue until the playback segments end, instead of always muting at punch-in. This means additional material can be recorded in advance of the designated punch-in point, allowing flexibility in the placement of the final edit. For example; in many cases a musician or vocalist will perform a “lead-in” or “pick-up” to the next section that would not be captured if punch-in occurs exactly at the beginning of that section.

Diagram 5 shows group selection of the newly recorded tracks and their movement to the playback tracks.

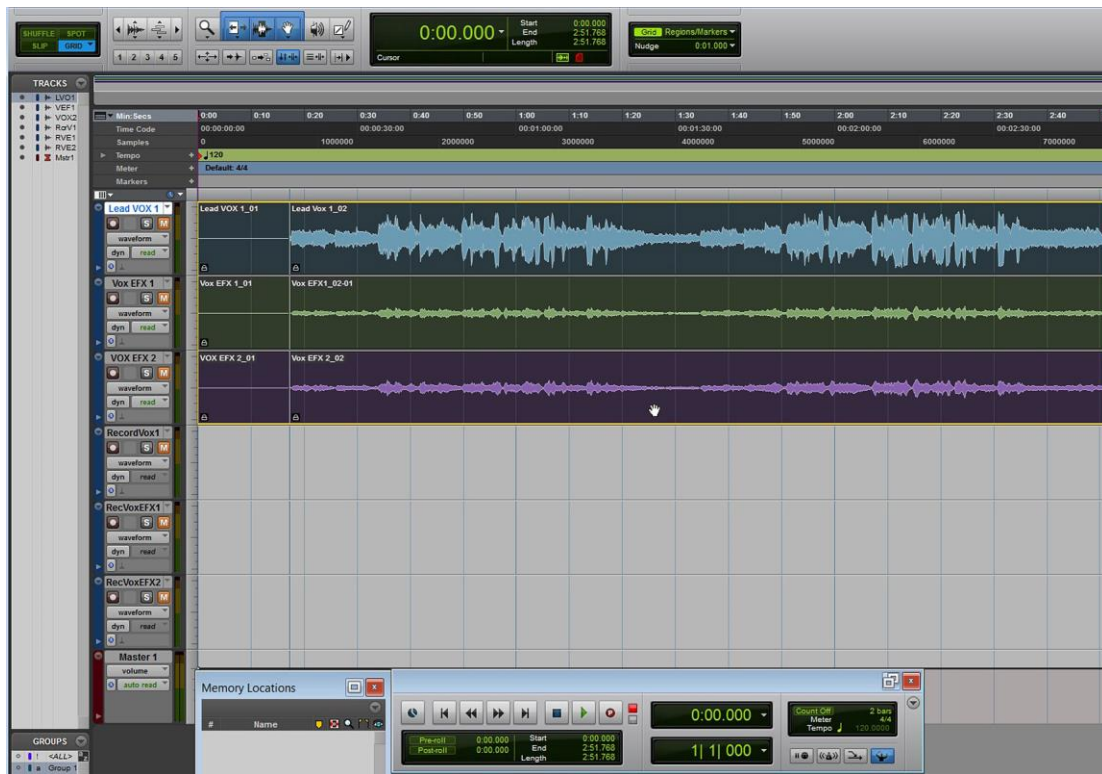


Diagram 6 shows a Marker being placed at the punch-in point during playback.

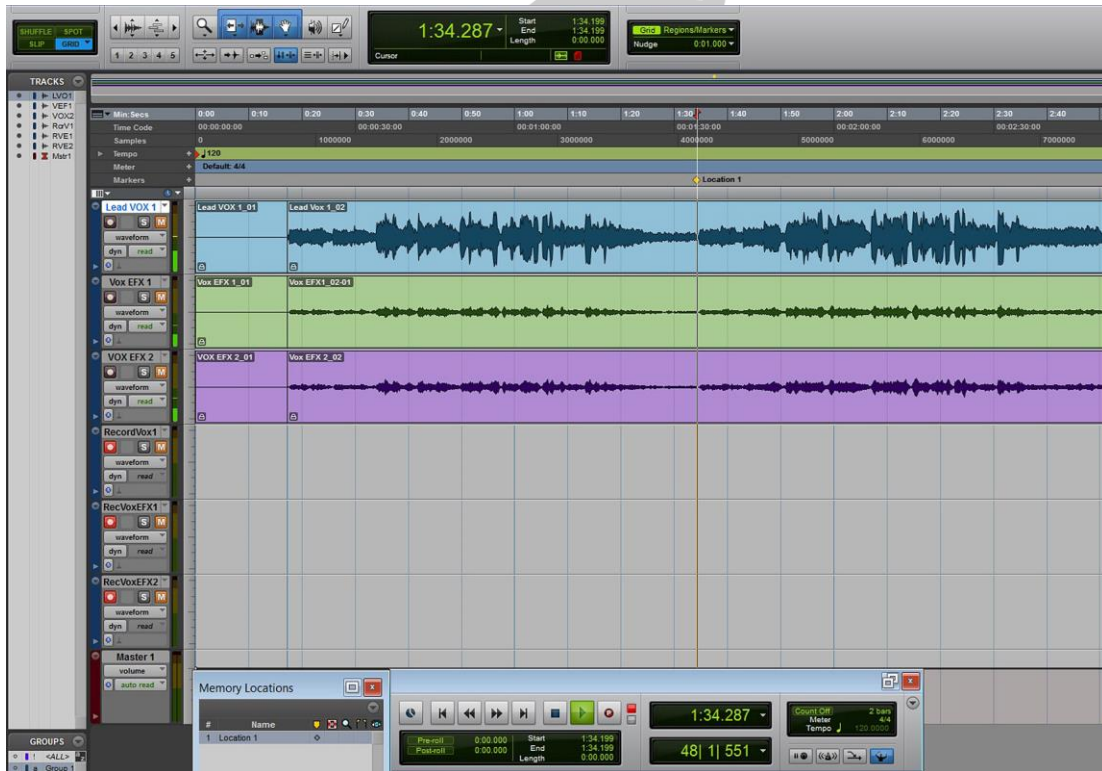


Diagram 7 shows group trimming of these segments by snapping to the Marker.

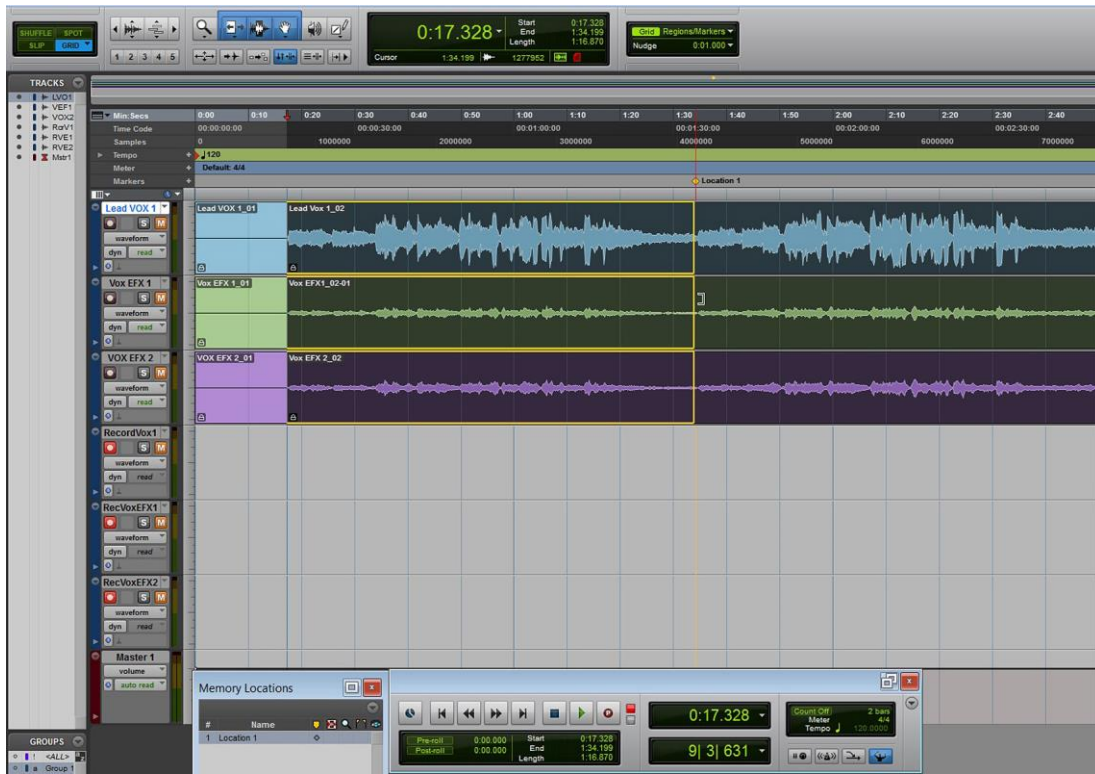


Diagram 8 shows recording of the next segment. The record channels are muted and recording was started prior to the punch-in point to allow flexibility in placement of the final edit.

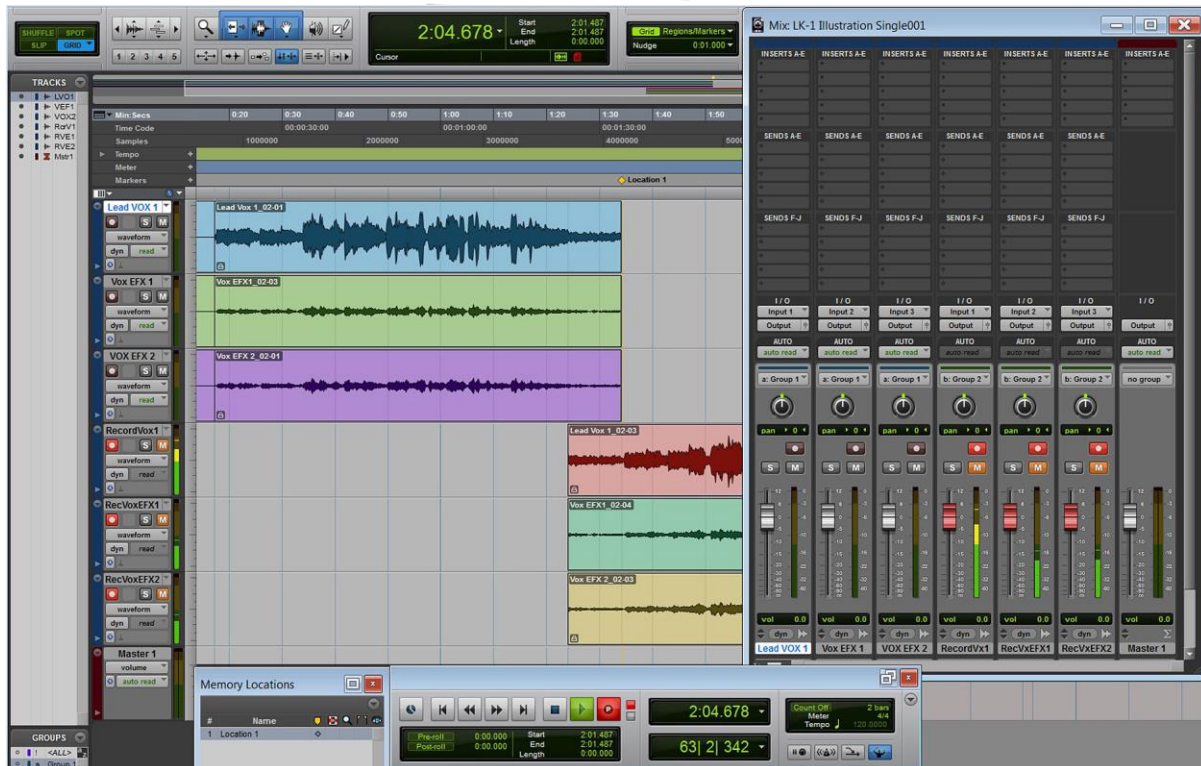


Diagram 9 shows group trimming of the newly recorded segments by snapping to the marker.

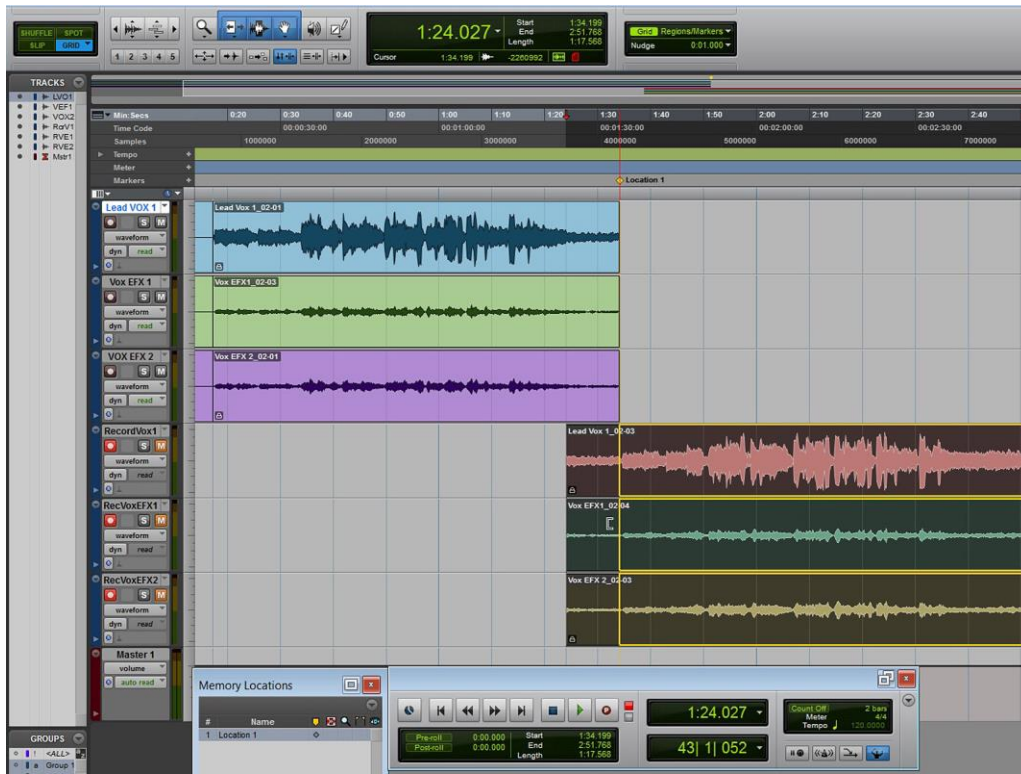
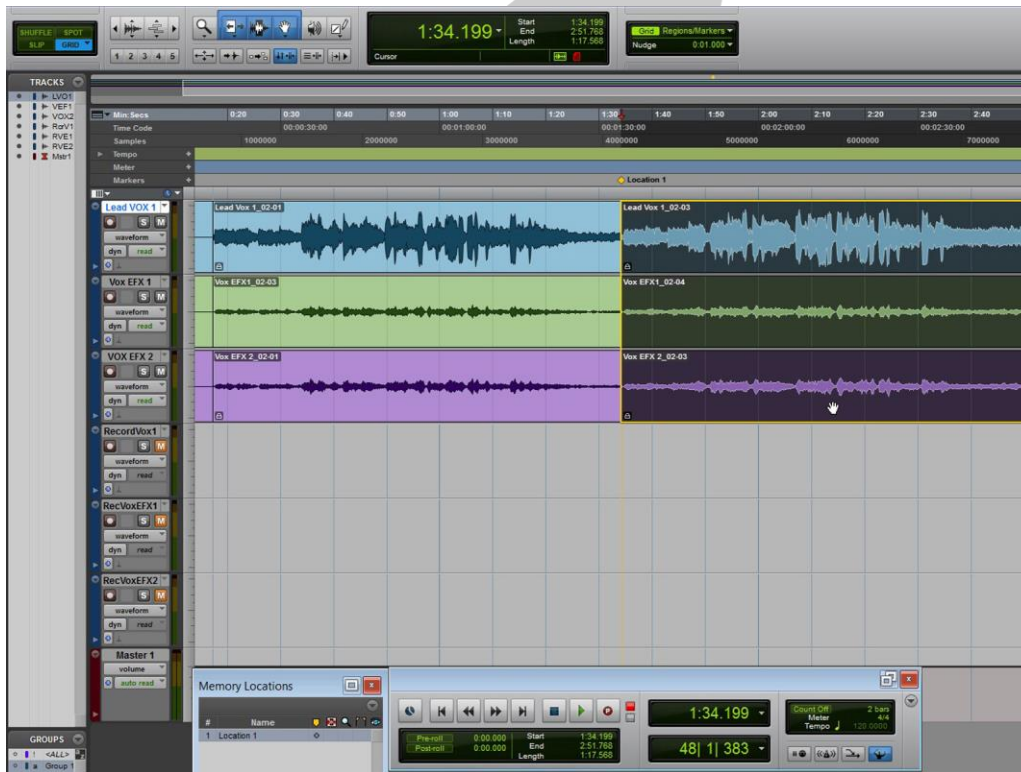


Diagram 10 shows the segments being moved as a group to the playback tracks.



The process is repeated with new segments being recorded on the “record” tracks, trimmed to the punch-in point, then moved to the “playback” tracks. A new marker is then placed at the next punch-in point.

Tips and settings-

➤ In order to prevent timing errors when a new segment is moved to the playback track after recording; it is a good idea to do one of the following:

1.) Before moving them, Select the “region” that includes the entire new segment (or segments) using the Grabber tool, and “time lock” it using the **Region/Time Lock** menu command.

2.) Hold down “Control” while dragging the segment(s) between record and playback tracks with the Grabber tool (hold down “Start” in Windows). This restricts segments to being moved vertically (it does not allow changing their position in time). Although faster than Time-Locking the segments; it does allow for the possibility that the segments can later be shifted in time *accidentally*.

➤ Placing a marker at the “punch-in” edit point can be helpful as a non-volatile snap-to point. The Edit Mode must be in “Absolute Grid” mode. The Grid Value indicator drop down menu has a selection “Regions/Markers” which must be checked to snap to a marker. This makes it easy and repeatable to trim segments’ start and end times precisely to the desired punch-in point



To enable placing a Marker by pressing the “Enter” key on the numeric keyboard during playback:

1.) From the Memory Locations Window menu, select “Default to Marker.” This ensures that new Memory Locations default to being Markers.

2.) From the Memory Locations Window menu, select “Auto-Name Memory Locations.”

