

Practical Recording Techniques for MIDI Sequencing

©2002 by Don Muro www.donmuro.com

The widespread use of MIDI sequencing programs with digital audio capabilities has changed the way most composers and arrangers work. Many musicians are using the best of both worlds by combining audio tracks with MIDI tracks. In this article I want to give you some practical recording techniques that can help you work more efficiently and musically.

Technique #1: Select the appropriate metronome.

The way you play musical parts into the sequencer will be affected by the music you are hearing during the recording process. Since most sequences are created by playing along with a metronome, you should try to select a metronome source that is appropriate for the music you are sequencing. There are several options for metronome sounds. For example, you might use either the side stick sound or the closed hi-hat sound from the standard GM drum kit if you are transcribing a classical piece. You might also use the closed hi-hat sound if you are composing a contemporary piece that was going to be quiet and sparsely orchestrated. Playing along with a heavy drumbeat would make it difficult to maintain the light feel you would want the song to have.

It is usually very helpful to play along with drumbeats for most contemporary music. Here are three ways to create drumbeat metronomes for a sequence.

1. *Import a drum loop audio file.* There are many CDs of drum loops currently available from companies such as East-West and Big Fish. These drum loops are audio recordings of both live performances by drummers and electronic patterns created by drum machines and samplers. To use drum loops as a metronome in a sequence, you use the sequencer's "import audio file" command to select the desired loops and to assign them to a specific track. After you have imported the loops, you can repeat them as needed by either looping the track or by copying and pasting. (Note: This method may not work for you if your song's tempo is much

slower or faster than the loop's original tempo. A substantial change of a loop's tempo can sometimes degrade the sound quality of the loop.)

2. *Import a Standard MIDI File (SMF) drum loop or track.* You can purchase a variety of drum patterns saved as SMFs. These MIDI files can be played back using the GM drum kits on any instrument. The MIDI data in these files can easily be edited to create a more customized drumbeat. You can also create your own drumbeat SMFs by using a program such as Band-in-a-Box. This program allows you to select drum parts such as intros, basic patterns and fills, and to assign each part to a specific measure. When you have created the drum part for your song, you can save the file in the SMF format and then import the file into your sequencer. If you use this technique, you can enhance the drum track by recording additional fills and percussion parts on other tracks.
3. *Create your own drum part.* This method is the most laborious and old-fashioned, but it often produces the most musical results. I usually create a basic four measure looped pattern as a metronome for the first few tracks. After I have recorded several other tracks, I re-record the drum part and create a finished drum set sound by recording the sounds in the following order:
 - track 1- snare/bass
 - track 2 – open/closed hi-hat and ride cymbal (one or the other, not both simultaneously)
 - track 3 – snare and tom fills as needed with crash cymbal
 - track 4 – percussion as needed (shaker, tambourine, woodblock, etc.)
 - track 5 – additional percussion or effects – snare doubles, cymbal rolls, etc.

If any parts are difficult for me to play, I slow down the tempo of the song while recording.

Before leaving this topic, I want to remind you that, in some instances, the best metronome is no metronome. It sometimes works to record your first track without a metronome and then to use that track as the conductor for your additional tracks. On one

of my pieces, I recorded a piano part without a metronome and played very spontaneously. Using the piano part as my metronome, I then recorded a clarinet track and two string tracks. The spacious feeling of time created in this way would have been almost impossible for me to create by playing along with a metronome and then editing the tempo track of the sequence.

Technique #2: Create a dummy track.

In certain sequencing projects, the ideal first track is one that contains all of the basic elements of the song. For example, while composing a song I might use some type of keyboard sound and play a bass part and chordal accompaniment on the first track. This track would then provide me with a rough idea of the song's chord changes, bass part and rhythmic structure. On a second track I would use some type of melody instrument and create a lead line over my rough dummy track. After I had created the melody, I would then mute the dummy track and re-record the keyboard part and bass part on separate tracks.

If I were transcribing a classical piece such as "Every Valley" from Handel's Messiah, I would first record the tenor solo part using a melodic sound such as an oboe or clarinet. This would help me create more dynamic accompaniments because I can react and respond to the solo part while I am recording additional tracks.

Technique #3: If necessary, alter the arrangement to enhance the sequence.

This technique is especially important if you are transcribing a printed score. Some time ago I was asked to create a sequence of an orchestral accompaniment for a choral piece. The music contained a passage where the choir sings over a very soft accompaniment. When the choir sang with my sequence, however, they couldn't hear the sequence and ultimately lost the beat. The easy solution would have been to make the sequence louder, but this would have destroyed the desired musical effect. To solve the problem, I added a soft timpani hit on the downbeat of almost every measure of the quiet section. The timpani reinforced the pitch of the cellos and basses, but it also acted as a soft metronome.

Everyone could hear it easily because it was below the range of the voices. In situations such as this, I have found that synchronization problems can often be solved by adding a soft percussive sound either below or above the range of the voice. (A soft triangle hit also could have solved the problem in this example.)

You will also have to alter an arrangement if you are creating an accompaniment sequence for a choral piece that has one or more “a capella” sections – sections that are sung without an accompaniment. The problem is to provide cues for pitch and rhythm without destroying the a capella effect. The solution is to find ways to insert these cues into the sequence as unobtrusively as possible. Try to use an instrumental sound that is already in the sequence. If the score includes string parts, try adding soft pizzicato string lines. The pizzicato effect will clearly indicate both the pitch and the beat. The singers will hear best when they are holding a note and when the part is above or below the sound of their voices. In some cases, you might have to create a melody or bass line to use as an anchor. There is no easy answer to this problem. By experimenting with different sounds and melodic lines, however, you can usually find an aesthetically acceptable solution.

Technique #4: Adjust track volume levels when you have finished recording all of the parts.

It's usually best to wait until all of your tracks have been recorded before you add volume curves to tracks. It can be difficult to make a decision about a track's relative loudness if you can't hear all of the tracks.

Most sequencers allow you to draw a volume curve using the mouse. However, you can often produce more musical results by assigning a slider or knob to either cc#7 (volume) or #cc11 (expression) and to overdub the volume changes in real time as you are listening to the sequence.

Technique #5: Create a tempo track when you have finished recording all of the parts.

Adding small variations in tempo can enhance almost every style of music. Increasing or decreasing a song's tempo by a few *bpms* (*beats per minutes*) can make a dramatic difference in the song's feel. The best way to do this is to "conduct" your sequence in real time by recording your tempo changes as you listen to your sequence. There are several ways to do this. Sometimes you can use an assignable slider to record tempo changes. You might also be able to use the "+" and "-" keys on your computer keyboard. This is a very important way to add musicality to a sequence, so it's worth taking the time to learn how to do this. Once recorded, tempo data can be copied, deleted and edited in much the same way as other types of MIDI data.

I hope you find these techniques useful. Remember, the more you work with these and other sequencing techniques, the more proficient you will become and the easier it will be for you to create musical sequences.
