

The Recording Process

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Thank you for your interest in M&M Studio. Whether you are new to recording or a seasoned pro, this document will help you get the most out of your recording experience. The two most common approaches to recording will be discussed in order to help you decide which one is best for you. Finally, the mix and mastering processes will be covered.

First, your group needs to be well rehearsed. Nailing a song on the first or second take will save valuable studio time. Second, you must be in tune. (The studio can provide electronic tuners if needed.) The studio can adjust your tuning after the fact digitally, but the process is time consuming and not recommended.

Drummers need to be aware that a set that sounds good in a live situation may not necessarily sound good in the studio. Each drum is tuned and dampened if required. The kit is checked for rattles that go unnoticed in a live performance but stick out like sore thumbs in the studio. A very common problem is a squeaky kick drum pedal.

Bring extra strings, sticks, heads, etc. Providing the engineer with a lead sheet of your songs can be very helpful. Most of all, try to relax. Many new clients are nervous on their first recordings and don't give the performance they are capable of.

We understand that budget constraints can be an issue. Studio time is not cheap. Still, try not to rush through the process. It will show in the final product. Take your time, listen to play-backs critically and let the engineer know if you made a mistake. Your music heroes spend many months in the studio laying down the tracks for an album.

One way to get your music recorded is to record it live. This method works well for acoustic groups. Your band is set up with baffles around each instrument (or amplifier) to reduce bleed-through to the other microphones. One drawback of this method is a mistake in any part will make it necessary to start over. Also, overdubs (recording parts on new tracks while listening to the previously recorded tracks) of instruments already recorded can create problems since the original part will be in the background on the other tracks despite the use of baffles. Harmonies or other parts that were not recorded previously can be overdubbed if desired.

The most common method is to record one instrument at a time. This takes more time than recording live, but the benefits are well worth it. This is the best way to record rock or other high energy groups. The rhythm section is recorded first, usually with a click track that functions like a metronome. The rhythm section includes the drums, bass, and occasionally a rhythm instrument like guitar or piano. If needed, a scratch vocal can be used to help you keep your place in the song. The rhythm section is recorded for each song that your group plans to do. When all the rhythm tracks are completed, additional parts are recorded individually.

If you make a mistake, the engineer can often "Punch In" a correction. The original take is played back while you play along. The engineer replaces the mistake by momentarily enabling record on your track. If you used a click track when recording, cut and paste techniques can also be used.

The last step in the recording process is the mix. This is where the tracks are combined into stereo. For the best quality, this is done on a different day than the recording session. Not rushing is also important in this phase. Engineers and producers often spend a week or more mixing just one song for a commercial CD.

If your group has a producer, this is the time where his/her input is the most critical. (If you have not hired a producer, we can provide one for you at a reasonable cost, or you may select one of your band members to fill this roll.) The producer has the ultimate control over the sound of the mix. You can imagine how difficult it can be to have each band member saying, "make my part louder"!

Generally, the mix starts with the drums. Each drum is tweaked and blended with the entire set. The bass is added next and adjusted to blend well with the kick drum. It is quite difficult for musicians to understand that non-musicians do not hear the same things that you do. The general public hears the tight interaction between the bass and kick and a good quality vocal as a 'good song'.

I often add a rough mix of the lead vocal next as a reference for the other instruments. The vocal will be refined after the rest of the instruments are done.

The other instruments are added one at a time along with the desired effects. EQ is often used at this stage to help the instruments that share the same frequency range combine without 'mudding' each other up.

We now have a rough mix. The next step is where the song can come alive. Notes are taken to indicate where the individual levels need to vary. Effects and EQ are finalized and notes made if the settings change during the mix. M&M Studio has automation capabilities that can be utilized at this point. Through automation, faders can move automatically and effect settings can be altered and duplicated with each play back. Although it looks cool to watch flying faders, I ride them manually when it is humanly possible.

If you are a rapper working with "beats" or a vocalist singing with backing tracks, your parts are blended with the existing track. The time required to complete this is much less than the time needed to record and mix a band. However, rappers often record in groups with multiple rappers doing different verses, the hook, adlibs and overdubs. (Rappers use the term overdub to mean doubling a part.) Obviously, the more tracks that are recorded, the longer it will take to mix.

To complete a mix at M&M Studio, the song is played back while it is being digitally recorded to two tracks in ProTools. Enhancements can be made in ProTools with the use of various plug-ins. The song must be played back again to "bounce" it to disk as a 16 bit .wav file (or MP3) that can be put on a CD.

After every song is mixed, an audio CD for each band member is burned at no extra charge. Projects can be backed up to a DVD if you so choose at a nominal cost per song. (The backup saves the original tracks in a format that allows them to be reloaded into the recorder for future editing.) All projects are deleted 2 – 4 weeks after completion, so back up is highly recommended.

The final step in producing a marketable product is mastering. Many recording studios have mastering facilities, but most send their mixes to a mastering house. Although M&M Studio is equipped with mastering plug-ins for ProTools, the best quality is achieved by sending the product to a specialized facility. A new set of ears at the mastering house with a room full of dedicated mastering equipment can add that extra touch. Please let us know if you plan to send the mixes to a mastering house. If you are, we will leave some headroom in the mix, keep it dry and leave the fade ins and outs alone.

Mastering is done on the stereo or surround mix. The mastering engineer uses equipment that can split the mix by isolating frequency ranges. The split signals can be individually processed with a variety of signal processors. Each song on the CD is processed to achieve the best possible sound quality and level. Fade outs are often added at this stage, and most importantly, the songs are made to blend well on the final CD. A glass master CD can be produced that is used to make the copies that are to be distributed.