

Overdubbing and Synchronized Multi-Track Recordings:

A recording is made with a single instrument or small number of instruments. Then that recording is played while other instruments or voices are added to create a second recording. This is done as often as required to get the total sound. Usually, performers make lots of recordings and then edit them after the fact, mixing in varying amounts of each one to come up with the final sound.

When magnetic tape was used, each recording was often called a "track" because each was on it's own individual section of the tape. The sections had specific locations on the tape. For example, cassette tapes have four tracks, two for right and left going one direction and two for right and left going the other. You may have also heard of eight-track tapes, which had four L/R pairs. Studios often used 10-track, 16-track or even 24-track recorders.

Overdubbing on magnetic tape was limited by the media. As the number of recorded tracks and/or overdubs was increased, the tape can be physically worn. Additionally, if most of the tracks are already used, the performer may start to re-use tracks, by combining the playback of one with the recording of another. In this case, instead of making each track unique and separate - with performers using headphones to ensure the already-re-recorded material isn't re-recorded on the current track - the target track contains both the new material and a reproduction of the original, summing the two. Then the old track can be re-used. But when this is done, the hiss from the playback track is recorded right along with the desired music content. So hiss increases with each successive overdub. Even if the sound-on-sound overdubbing technique isn't used, the final mixed copy will still have tape hiss from all the tracks as well as the final mix.

Now days, digital recordings are made instead of analog recordings on tape. It's easier for two reasons - For one thing, you don't add hiss with each successive generation and for another, you aren't limited by the number of tracks. A digital workstation usually has more tracks available and some have an unlimited number of tracks.