

The Mix

(A pop music viewpoint)

- Pros have done 1000s of hours!
- Compare *compare compare* your mix to other mixes!
- Put your mix *in a playlist* with similar music.
- Listen to it on as many *different speaker* systems as possible.
- *Spectrum analysis* can identify differences

New York Style

- Highly compressed
- Thus punchy and aggressive
- EQ boost high and low
- “Recreate the event!”
- Smithereens, Mick Jagger’s She’s the Boss, Living Color

LA Style

- More natural although still compressed
- “Capture the event!”
- Doobie Brothers, Van Halen

London Style

- Many effect layers
- Highly compressed like New York
- More complex arrangements
- Lots of detail/busy work

Nashville Style

- Started as simple, warm EQ, few layers
- Rhythm track driven like later 70s pop
- Aural spaces between instruments

Mix Strategies

- Have an idea of what you want before, or an example
- Don't let the controls "lead you."
- Tall Deep and Wide Theory
 - Full frequency is represented (20-20K?)
 - Some midrange usually is reduced though
 - Deep with reverbs, delays, flanging, chorus
 - Wide in stereo mix

You Will Adjust

- Balance (Levels)
- Frequency Range (EQ or high/low/pass)
- Panorama (Stereo R-L or 5.1 placement)
- Dimension (*ambience: reverb, delay*)
- Dynamics (*compression, limiting*)
- Interest (*the arrangement: something changes, builds, the second half is not a repeat of the first*)

Balancing Competing Tracks

- Like 2 voices, or guitar and keyboard
- Or street noises with a dialog
- 1. Levels are the obvious first choice.
- 2. Change the frequency range of individual tracks (EQ or high/low/pass)
 - Adjusting to make room for each other.
 - For instance boost one at 500Hz. Other at 800Hz.
 - Whatever is most important may have to get the biggest chunk of frequency range.

Balancing Competing Tracks

- 3. Cutting out parts of each track
- 4. Rearrange and re-record the instrument
- 5. Pan the clashing tracks apart.

Building a Mix: Options

- Listen to each track and note problems.
 - Get rid of rumbles, clashes, and tracks that really are redundant, like chording?
- Start with loops?
- Or start with everything at -6 dB?
- Or build up track by track from the heart of the arrangement?

Building a Mix: Adding Tracks

Building Dance/Pop Music

- Start with bass?
- Start with kick drum?
- Start with snare drum (2,4 back beat)
- Start with bass and drums?
- Or Start with most important element:
 - Dialog, key object sounds, vocalist track
 - And fill in other sounds around it.

Building a Mix: Options

- In a section (horn, string), work from highest to lowest pitched.

Helpful Actions

- Switch off effects when recording.
 - Less effects means less CPU load
 - For some, wait until mastering?
 - Install a master effect and suspend it.
- Use solo often to isolate sounds.
- Any effect setting you like? Save the setting using a name that is specific.

Levels

- Start with bass, kick drum at -5 or -6
- Together they will be -4 or -5
- Later, with compression -6 or -7

Reverb

- Reverb effects easily add to the overall volume level.
- Can be a heavy CPU user.
- Many automatically reduce the dry part of the mix. Any good reverb will have a way to turn down the dry and wet parts of the reverb “mix.”
- Leave headroom for the last mastering step.

Compression?

- Expected and often overdone
- The *sugar* of mixed music
 - Bass is almost always compressed a lot
 - Vocals not quite as much
 - Rhythm related tracks often compressed
 - Snare, electric guitar, lead guitar
- A second overall compression, (“buss compression”) is very common in pop music, required in commercials.