

Study Questions - Studio One & DAWs

What is the difference between a *song* and a *project*? *Project* is a CD-type collection, or any set mastered to share audio characteristics.

Why would anyone want to set a tempo in New Song dialog before starting to record?

What are two ways to move between panels such as Arrange, Edit, Console, Inspector?
F2 F3 F4 etc., buttons bottom right

How do you *bring in sound files* to a Studio One project? (ones that you didn't record in Studio One)
Drag or Song > Import

What is an **event**? *Audio or MIDI clip or Loop*

What are two ways to switch mouse tools? (Arrow, Range, Split, Erase, Paint, Mute, Listen)
• Icons above Arrange, Rt-Click, 1/2/3

How do you slip an event to another start time?
• Arrow tool drag bottom of event

How do you move quickly back and forth on the timeline? *• Press Shift + roll the scroll wheel*

How do you zoom in to a track?
• Shift+Command+ Scroll wheel

How do you increase the *visible height* of a track so you can see the waveform better? *• Drag bottom*

How do you cut a clip into two clips?
• Use the slice mouse tool.

How do you fade in or fade out a clip?
• Drag the fade handles in the clip

How do you change the level of an individual clip?
• Drag small tab at top middle of event up or down

How do you bring in an effect or plugin to a track?
• In the Inspector or Mixer, click on Insert +

What is the fastest way to pause/restart playback?
• Press the spacebar

What is meant by *solo*? Where is it?
• S button in Inspector, Mixer, Arranger track

What is meant by *mute*? Where is it?
• M button in Inspector, Mixer, Arranger track

How do you create and name a new track?
• Press + in Arranger, or Track > Add Track

How do you move events to different tracks?
• Drag the bottom of the event with arrow tool

How do you set stereo balance on a track?
• Drag the blue line R-L in Inspector or Mixer

How do you create/export a WAV or AIFF or MP3 version of your mix?
• Song > Export Mixdown

How do you assign a microphone or mixer input to a particular track for recording?

What is a *click track*?
• A metronome sound that performers can hear as they add new tracks. Keeps the timing perfect and allows the sound editor to easily move musical events to different places in the song.

What is a *crossfade*?
• One event blends perfectly into another without any pause.

What is *automation*? Where do you find it in Studio One?
• The ability to program the amount or level of any variable in the mix or plugin, using a simple line interface. Rt-click on the left of a track and choose Show/Hide Automation. Then pick which variable you want to automate. A line appears over the track. OR you can add a separate track with the automation (good idea if you have room on the screen!) Track > Add Automation Track

What are *plug-ins*? And what are the common ones mentioned by your instructor?

What does *bouncing* a track mean?
• Rendering a string of little events into a single sound file

What do the terms *wet* and *dry* mean in a mix?

What is *dynamics*?
• The amount of variation from loud to quiet in a track or mix. Example: varies from -10dB to -50dB

How does a *compressor* work?
*• Reduces dynamics above a threshold level
• Then usually increases gain to make it up*

In a compressor, what do *threshold*, *ratio*, *gain*, *makeup*, *attack*, and *release* variables do?
*• the level above which compression will happen
• how severe is the compression*

- average levels brought up after compression
- how quickly the compression starts after the level has risen above the threshold
- how slowly the compression stops after the level has dropped below the threshold

What is a 1) limiter and a 2) gate?

- 1) Compressor that simply keeps a lid on levels, used to avoid clipping, or to make pop music sound extra loud
- 2) Compressor that only works below a threshold, used to automatically reduce steady-state noise in quiet passages

How does a low-pass or high-pass filter work?
What do the numbers mean?

What are "buss effects"?

- Plugins put on the overall mix ("Main")

What are four good reasons to use compression?

What does a multi-band compressor do that a regular compressor cannot do?

What does a soft-knee compressor do?

Mechanics of Mixing

What levels would you start with for each track as you begin to build a mix? • -6dB

How do you pick which track to begin your mixing adjustments?

- What is most important for communication?

What are a couple of elements that most mixers generally agree they start with?

- Bass + Drums or • Vocal/lead

What is a foundation in pop music?

- Usually bass and drums

What are general rules for arrangements?

- 3-5 elements at once are enough usually
- Everything in its own frequency range

What is a pad?

- Long duration holding instrument
Synth, horns, vibe chords etc

What is a lead? What is a fill?

- The main vocal or instrument to listen to.
- Something interesting you put into the pauses in the lead

What do "tall, deep, and wide" mean in a mix?

- Low to high frequencies are represented

- Reverb places elements front to back
- Stereo pan left to right

What are the signs of an amateur mix?

- No contrast (usually verse to verse)
- Holes without fills (focal point)
- Noisy mixes - breaths, clicks, rattles
- No clarity nor punch - not distinct
- No intimacy - too much reverb
- Inconsistent levels
- Boring elements - overused stuff?

Balance

How can two elements "fight one another"?

- Same freq range + same pan position

How do you keep elements from fighting?

- Turn one off • move apart in pan
- EQ uniquely
- Limit the number of elements
- Turn one down

Panorama

Why do film soundtracks have a center channel?

- Keep the phantom center from moving

What is usually panned to (near) the center?

- Lead instrument - vocal - kick - bass - dialog

(Note "kick" is the kick drum, the big one on the floor. It usually works closely with the bass guitar in a pop mix, and is crucial for dance mixes.)

What should you pan all the way left or right?

- Probably nothing! (nothing important)

What is different about panning for dance mix?

- Anything all the dancers right and left need to hear should be nearer to center.

Frequency Range

The more elements/instruments in a mix, the more bass boost OR bass cut on each? • bass cut

Kick drum EQ starting point?

- Boost 70Hz and 4kHz, cut 250Hz

Bass guitar EQ starting point?

- Balance 100Hz with 180Hz range
- Boost 800-1kHz for clarity
- Use a high-pass at 40-60Hz

Vocal track EQ starting point?

- Depends on voice
+ 125-250Hz = strong and chesty
+ 2k to 4kHz for more consonants
seems closer - intimate