

Lec 7

Wed 2/28/01

MIDI - Musical Instrument Digital Interface.

small files

- do they contain any audio? no!
instructions for a synthesizer.

↓

pitch,
duration

varies tremendously,
so midi varies

velocity - intensity, amplitude.

type of sound (organ, guitar, etc)

Netscape has own synthesizer.

- converting to midi very difficult.
midi converters can be bought
some come with guitars.

mic proximity effect: close emphasizes
bass

- omni / uni - directional

- condenser / dynamic

ext. power
Omni/uni
more detailed
sound pickup

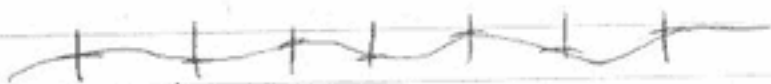
no ext. power
omni/uni
can handle louder
sounds

DSP - Digital Signal Processing

EQ / FILTERS

↳ treble/bass

↳ graphic EQ

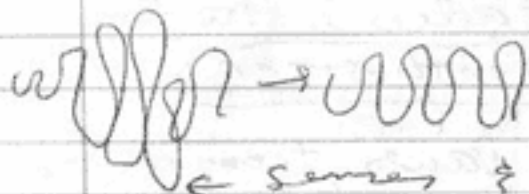


low freq mid-range high

Lec 7

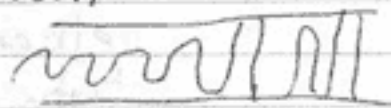
Wed 2/28/01

Compressors / Limiters
low vol sounds louder
hi vol sounds softer



compressor & turns
down vol at threshold
10 dB - decibels
10 bells

10:1 ratio
high threshold
fast attack time.
- limiter: helps
keep clipping
down



+ 6 dB = doubling the volume
considering the way we hear

begin: - attack time - how fast vol. changed

end: release time - " " " "

ratio - most input about compressors.

2:1 - very common ratio used
input : output
volume is halved

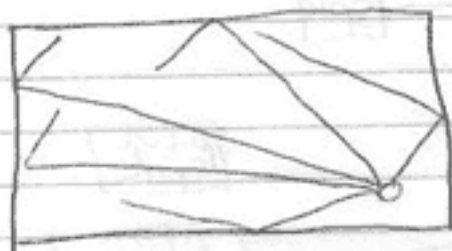
Delay - delays time the signal starts.

50 msec delay detectable.
multi-step delay - loop based delay.
feedback

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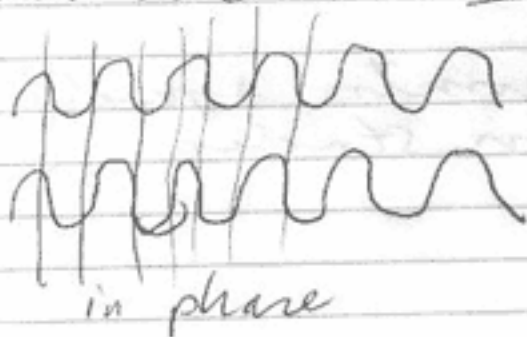
Wed 2/28/01

reverb - many delays of different times
& different intensities (vol.)



Simulates room
process.

not on exam: Phasing - well, maybe
on exam.



→ shift over for phasing
thickens sounds.

- changing phases shift & waves shorter
& longer.
- with harmonic can get tremelo.