

Lecture 04

demo 09 - Circular buffer (long buffer)

- two versions:

From Lecture 03:

- 1) buffer length = delay in samples
buffer uses one index

New in Lecture 04:

- 2) buffer length > delay in samples
buffer uses two indices
one index for reading, one index for writing
useful when delay is time-varying
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demo 10 - Vibrato

Vibrato

- play_vibrato_simple.py
 - time-varying delay
 - non-recursive
 - no interpolation
 - read wave file
 - save to wave file, write each block to wave file...
 - with interpolation
 - more effects: flanger, chorus, etc
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demo 11 - Blocking

- amplitude-modulation (AM) to change voice
 - reads wave file
 - three versions
 - 1) no blocking (one sample at a time)
 - 2) reads and writes signal values in blocks (not just one sample)
 - transient artifacts due to inter-block discontinuity
 - 2) corrected block version
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demo 12 - audio plotting
