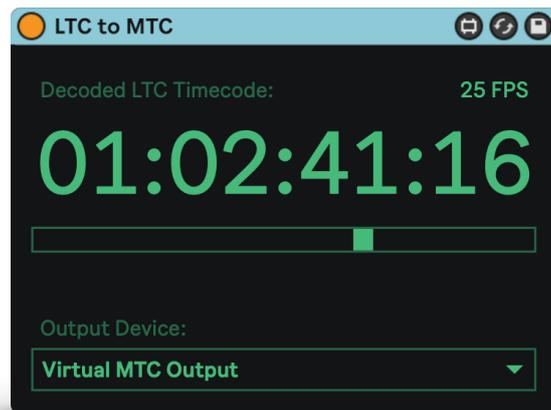


LTC to MTC Converter

by Leolabs



Made for Ableton Live 10 & 11
Works with macOS 10.15.7 & newer

Getting Started

The LTC to MTC Converter is a Max for Live device that decodes the SMPTE timecode embedded in incoming LTC audio and converts it into an MTC signal. To use the device, just drop it on an audio track containing LTC clips and start playback.

While the device is able to decode timecode, the display lights up in green and after stopping playback or when no valid timecode has been decoded for a short while, the display fades down to a darker green again.

By default, the LTC to MTC Converter creates its own virtual MIDI device, "MTC Output", but you can send the MTC signal to any other MIDI device as well by selecting it in the output device dropdown.

Supported Frame Rates

The decoder automatically detects 24, 25, and 30, as well as 29.97 FPS signals. Since the frame rate isn't encoded in the LTC signal, it uses the number of decoded frames per second and the last frame number of each second to guess the frame rate. This might take up to one second after the first frame has been received.

If the frame rate doesn't match any of the supported ones, the device will display an estimated frame rate, e.g. ~50 FPS.

Generating LTC Clips

To generate LTC clips, you can use free tools, e.g. <https://elteesee.pehrhovey.net/>

These tools allow you to specify a frame rate, start timecode, and length and generate a WAV file that you can download and place in Live. The LTC signal is usually quite loud and unpleasant, so I'd recommend turning down the volume or deactivating the track your LTC clips are placed on before starting playback.

Synchronizing Logic Pro to Ableton Live

Here's a video tutorial for this: https://youtu.be/0BPJ_3Tfyhs

Setting up Logic Pro to receive timecode from the LTC to MTC Converter is quite simple. In Live, add the device to your LTC track and set the output device to "Virtual MTC Output".

In Logic Pro, go to *File -> Project Settings -> Synchronization...* and set the Sync Mode setting to "MTC". You can also set the frame rate here, though Logic will offer to set it automatically when it detects that the incoming frame rate doesn't match the project setting.

Synchronizing Pro Tools to Ableton Live

In Live, add the device to your LTC track and set the output device to "Virtual MTC Output".

In Pro Tools, first go to *Setup -> MIDI -> MIDI Input Devices...* and make sure that "MTC Output" is checked. Then go to *Setup -> Peripherals... -> Synchronization* and set the MTC Reader Port to "MTC Output". Lastly, enable the Sync setting on the transport panel.

Troubleshooting

If the LTC to MTC Converter doesn't work as expected, please check the following:

- **Are you running at least macOS 10.15.7?**
Unfortunately, the decoder won't work with older OS versions.
- **Is a clean LTC signal coming in at least on the left channel of your track?**
The decoder uses the left channel to look for incoming LTC audio.
- **Does the device work with another LTC clip?**
This is rarely the case, but the LTC signal might be corrupted.

If these steps didn't help, please contact me at support@leolabs.org