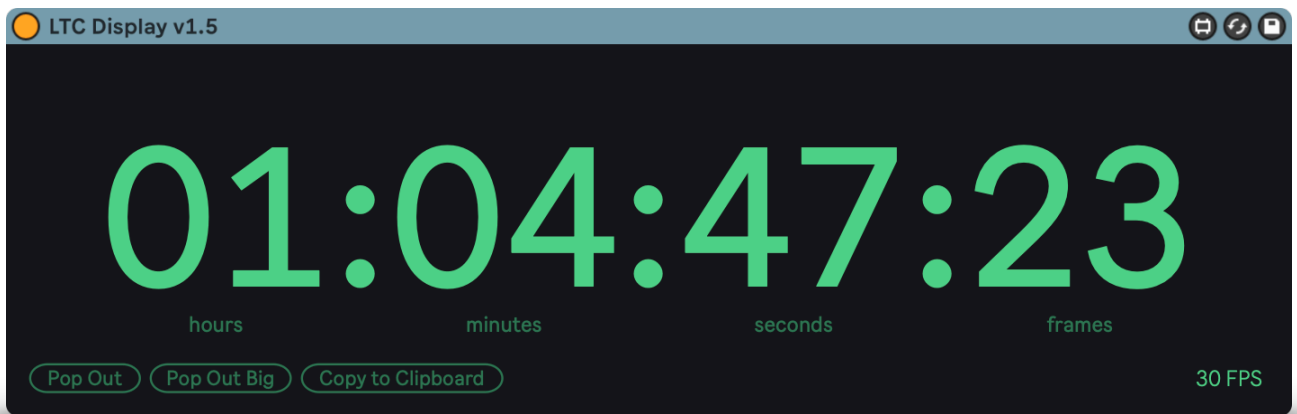


LTC Display

by Leolabs



Made for Ableton Live 10 & 11

Works with macOS 10.15.7 & newer, Windows 10 & newer

Getting Started

The LTC Display is a simple Max for Live device that decodes the SMPTE timecode in incoming LTC audio and displays it as it comes in. LTC audio is often used to synchronize video or light shows to a song. 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.

To keep the timecode in sight, you can either click the **Pop Out** or **Pop Out Big** button. This will open a floating window with the current timecode.

Supported Frame Rates

The decoder automatically detects 24, 25, and 30, as well as 23.976 and 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.

Copying the Current Timecode

By clicking the "Copy to Clipboard" button, you can copy the current timecode to your clipboard. This is useful for taking notes at specific timestamps.

Warping LTC Clips

It is possible to change the speed of the timecode by warping your LTC clips. If you set the warping algorithm to Re-Pitch, the device will still be able to decode the current timecode.

Connecting the LTC Display to AbleSet

AbleSet is an app that allows you to manage and control your Ableton setlist from any device. You can use the LTC Display in combination with AbleSet to see the current timecode in its setlist and performance view.

To set this up, go to AbleSet's settings menu and enable the LTC Timecode -> Display LTC Timecode option. The LTC Display will then automatically transmit the current timecode to AbleSet as it comes in.

Viewing the Current LTC Timecode on Your iPad

If you want to monitor the current timecode from your iPad, you can do so using the Mira app by Cycling '74. With your iPad on the same network as your computer, the computer should show up in the list of available Max Servers. After connecting to it, you should immediately see the current timecode on your iPad.

Troubleshooting

If the LTC Display doesn't display the current timecode, please check the following:

- **Are you running at least macOS 10.15.7 or Windows 10?**
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 LTC Display 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