GETTING STARTED

WITH

FINALIZER

What is Finalizer?

Developed by TC Electronic, the Finalizer app is a next generation mastering environment for Mac and Windows computers.

With the powerful range of groundbreaking and award-winning real time mastering tools, you have everything you need to become your own mastering engineer and take your music to the next level.

The game changing visual approach to mastering presented by Finalizer lets you view your tracks, like you've never seen them before with the dynamics, loudness and frequencies across your entire song in a single view.

This is Finalizer. Get ready to revolutionize your music production.

Quick start guide

1. Create an iLok user account and install the PACE iLok License Manager on your computer if it's your first time using iLok.
2. Activate your purchased or trial license in the PACE iLok License Manager.
3. Download and install the Finalizer app specific to your operating system.
4. Set up your sound card preferences in the Finalizer app.
5. Import the audio file you want to work on.
6. All set, get mastering!

Getting started with Finalizer

Open app and choose audio settings

When the installation is complete, click on the Finalizer Icon to open the app. Before doing anything else, you must choose what soundcard you want to use. Go to *File/Preferences* and select the *Audio* tab. Select which *Device driver* you want. If you're using an external soundcard, you probably want to select that as your device driver. There is also the option of changing *Output device* and *Output channels*.
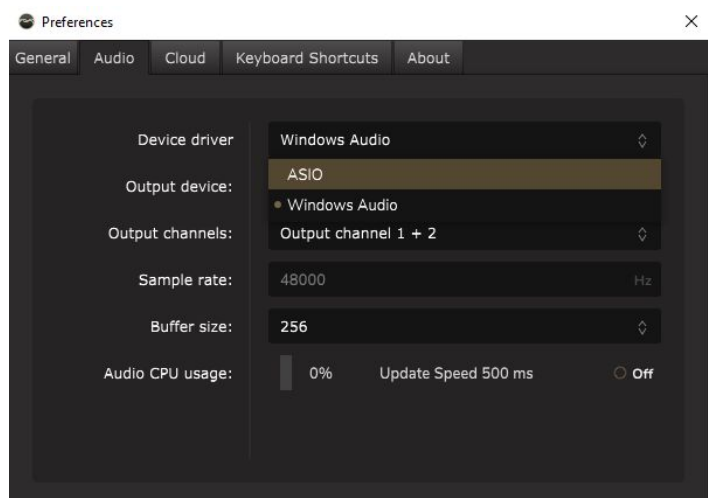
Open a file

The easiest way to open a new file is to drag-and-drop it into the SPECTRO LAB window. Alternatively, click on the *File* tab and select *Import Audio File*. The imported audio file is copied into the Finalizer project.

Selecting A, B and reference (REF) tracks

Finalizer is able to seamlessly play back different versions and files for direct comparison. The original mix track you load into Finalizer is the A track. The processed version of your track (the version that is being altered through the processing chain) is the B track. The tracks you upload for referential listening (your reference tracks) will get the abbreviation REF. You toggle between A, B and REF by selecting them under *Compare* in Finalizer's top bar.

Adding/deleting reference tracks

Finalizer can hold up to 20 reference audio files, but you can only play back one file at a time. To add a reference track, simply drag-and-drop any audio file to the REF files SPECTRO LAB area or the REF Track List View. You can also use the (+) in the REF Track List. The Modules List REF Track List now shows the REF files included in the project.

A reference track is easily removed by pressing Backspace/Delete or using the bin. In the info field the track metadata and file path is shown. All information except the actual audio file is saved with the Finalizer project file.

The Modules section (Edit view | Module list view | Library view)

In the *Modules* section of the top bar, you can toggle between three different views: *Edit*, *Module List* and *Library*. If you disengage all of them, the *SPECTRO LAB window* stretches all the way from the left side of the screen to the *Monitor Out section* at the right. If you turn on the modules, they will appear in between the *SPECTRO LAB window and the Monitor Out section.*

Edit view gives you access to information about the processing algorithms and this is where you change settings for the parameters. In the Edit View Info section, you can save a Module preset to the Library.

Module list view gives you access to an overview of the entire processing chain. You can add new modules or module chains into this window by drag-and-dropping them from the *Library*.
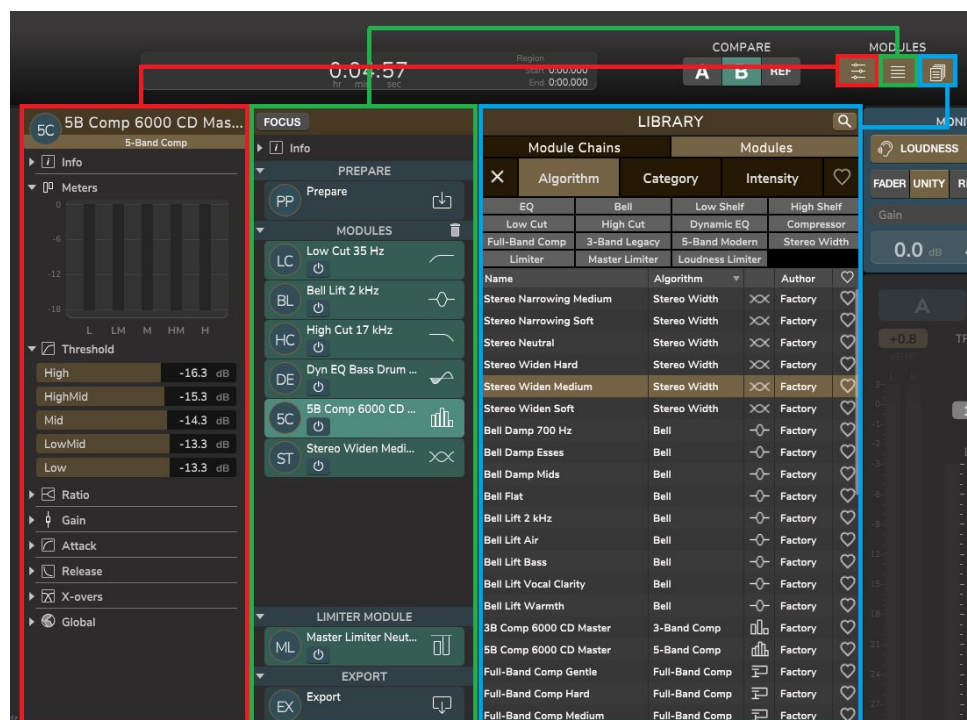
In the Module List Info section, you can save a Module Chain preset to the Library.

Library view shows you all the available processing modules and processing chains. From here you can drag-and-drop them into the *Module list window*.

You will notice there is a logical flow from right to left:

- The library view is where you find the algorithms (modules).
- The module list view is where you arrange the modules in the processing chain.
- The Edit view is where you adjust parameters to get the desired result.

Modules List and Serial Processing Chain

The module list is divided into four main sections. From top to bottom they are as follows: *Prepare*, *Modules*, *Limiter Module* and *Export*. For now, we will skip past the Modules. But don't worry: We will come back to that shortly.

Prepare: This is where you begin the actual mastering process. Start out by selecting the project sample rate. It can be identical to the source file (original) or be set to 44.1 or 48 kHz. When the project sample rate is different from the source file, a High-Quality FIR conversion filter is applied.

Next, set the Level Normalize. This is where you indirectly set the pre-gain on the source file, so it fits the dynamic range of the monitor playback channel. You should choose a Loudness Level where there is saved margin below 0 dBFS for the True Peaks in the track. The Level Normalize can also be left untouched so the source file doesn't change level (Original).

The Level Normalize function has an optimized setting (Recommended) where the Peak-to-Loudness value is automatically considered. The optimal Prepared loudness level can be seen in the resulting measurements in the Prepared section.

Limiter Module: The transparent True-Peak Limiter module is placed after the flexible processing chain. You can choose between a conventional Limiter with Input Gain and Output Trim (output gain). Alternatively, you can choose the all-new Loudness Limiter module that automatically sets the Limiter Input gain and threshold to fit a specific full-track loudness level - this is especially relevant in relation to modern streaming services.

The Limiter includes a flexible and delicate Soft-clipper. The amount parameter determines the degree of peak reduction at its maximum across the full track.

Export: The process ends with the Export module where you set the Output File Format, Bit Depth, Sample Rate and filter and Dither.

Modules in the library

Single-band parametric EQ: These are indispensable tools to any mastering engineer. In Finalizer there are five different single-band parametric EQs that you can use individually or stack according to your needs: Bell, Hi/Lo Shelf and Hi/Lo Cut.

5-band parametric EQ

You can think of a 5-band parametric EQ as 3 bell curves (low, mid and high) flanked by a low cut and a high shelf. If you want to address multiple EQ problems at one, this is the easiest way to do it.

Single band parametric Dynamic EQ

Although this is categorized as an equalizer, it works similar to the way a compressor does – only for a specific frequency range. This is great for controlling troublesome frequencies without having to make drastic EQ cuts or use compressors that affect wider frequency ranges.

Full Band Compressor

This is a full (single) band RMS compressor with great dynamic behavior qualities. It is great for "tightening" the mix and the way it processes the audio may be more audible than multiband compressors or Dynamic EQs.

3-band Compressor

This is a recreation of a well known TC legacy-style compressor, that has been used on countless hit recordings. Perhaps that's why it sounds familiar? With different settings for low, mid and high frequencies, it delivers a transparent compression with a nod to the masters of yesteryear.

5-band Compressor

This is a modern-sounding multiband compressor based on TC Electronics industry leading Mastering 6000 unit. It allows you to control five frequency bands and will tie everything together using four Linear Phase Crossover Filters. This translates into a pristine and transparent compression effect.

Stereo Width

The full band Stereo Width algorithm contains an intelligent Mid/Side balancer, a Mid signal panner and a stereo panner. It's great for subtle changes of the stereo image.

That completes the list of single module effects and filters. Now on to the module chains!

Module Chains in the library

Under the library module you can select *Module Chains* instead of *Modules*. Here you will find a selection of tailormade presets created for different aims. Just like the individual modules in the library you can turn them on/off and change the different parameters.


To engage a Module Chain, double-click on it in the library. It will then appear in the module list, highlighted in red. The chain is not active yet but you can preview the processing in real-time on your source track. When happy with the choice of Module Chain, you click 'OK' to 'Accept Module Chain Recall into Project'. When the modules are green, the chain is activated.

Edit sticks

As already mentioned, you can edit the modules in the Edit View. But in many cases, you can benefit from using the Sticks that appear in the SPECTRO LAB area. Depending on what type of module you are working on, different Sticks will appear. Sliding them left/right or up/down will change a variety of parameters.
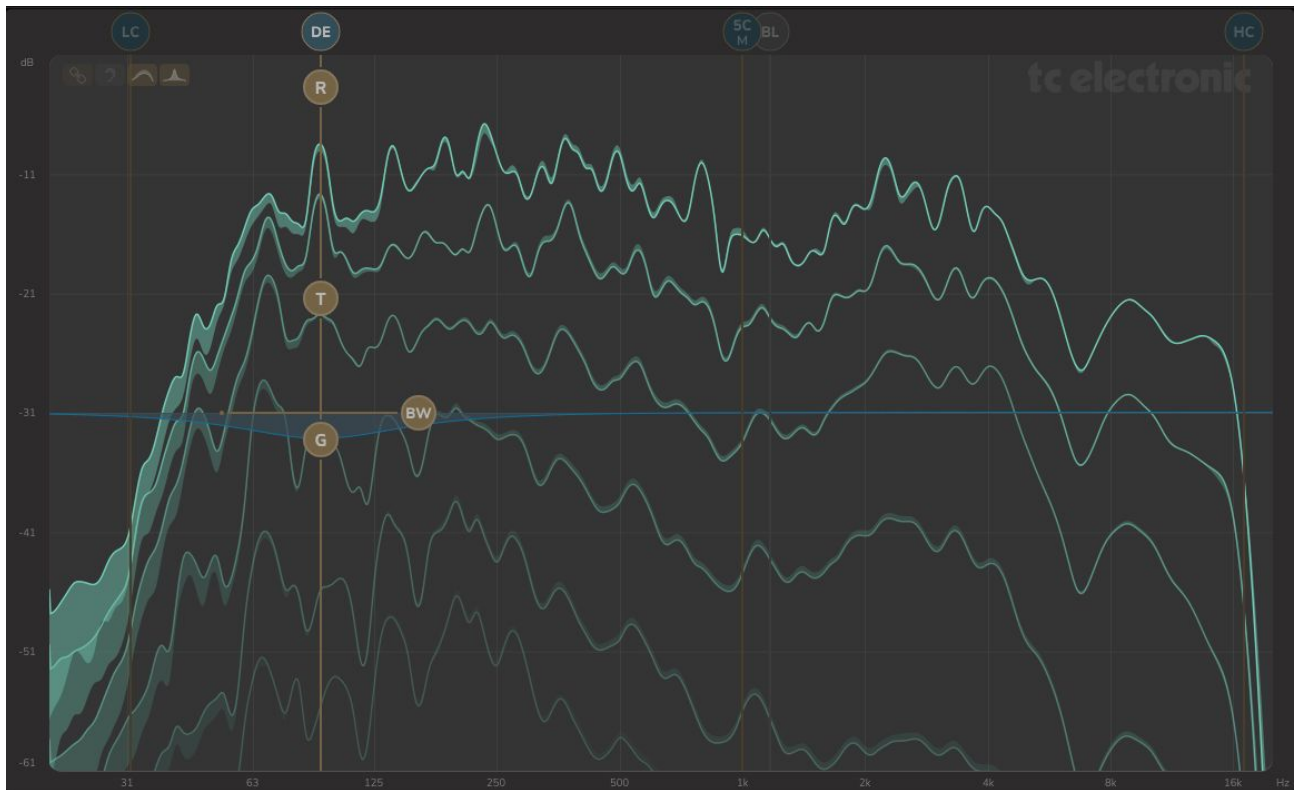
EQ: Sticks let you control center frequency, bandwidth and gain.

Dynamic EQ: Sticks let you control center frequency, bandwidth, gain, threshold and compression ratio.

Compressor: Sticks let you control center frequency/frequencies, gain, threshold and compression ratio. Cross-over frequencies are available for multiband compressors.

Sticks that address the dynamics of the full frequency band (for example Full-band compressor) are shown in the right-hand side of the SPECTRO LAB. Note that Limiter and Balance Modules do not have any sticks representation in the SPECTRO LAB area.

Real time vs full-track spectrometer views

In Finalizer you have the unique possibility to get both real time spectrometer readings and full-track readings. You can toggle between three different types of overview: SDC, RTS and AVG.

- Spectral Dynamic Contour (SDC) gives a high-resolution overview of the <u>full</u> track - both spectrally and dynamically.
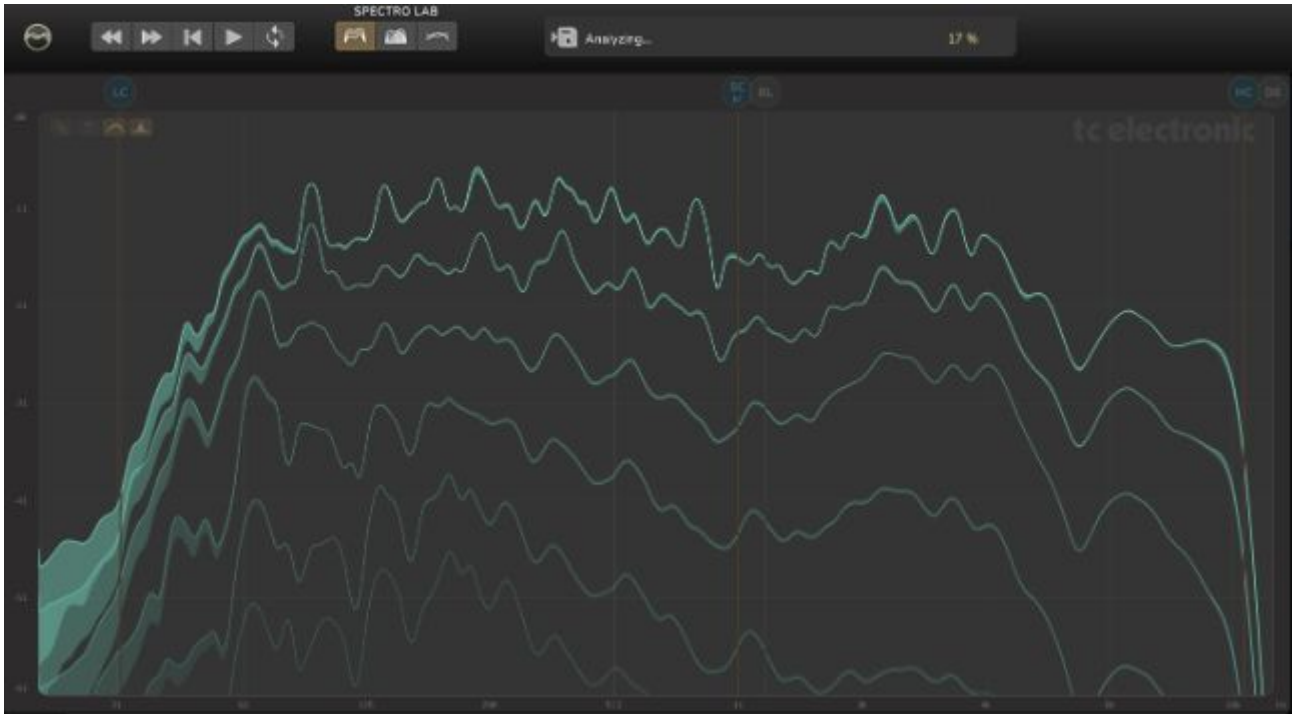
- Real Time Spectrum (RTS) is a high-quality version of well-known spectrum analyzers. It shows you a high-resolution real-time Peak and RMS spectrum on top of the Spectral Dynamic Contours. The RTS will help you fully understanding the power of the SDC curves.
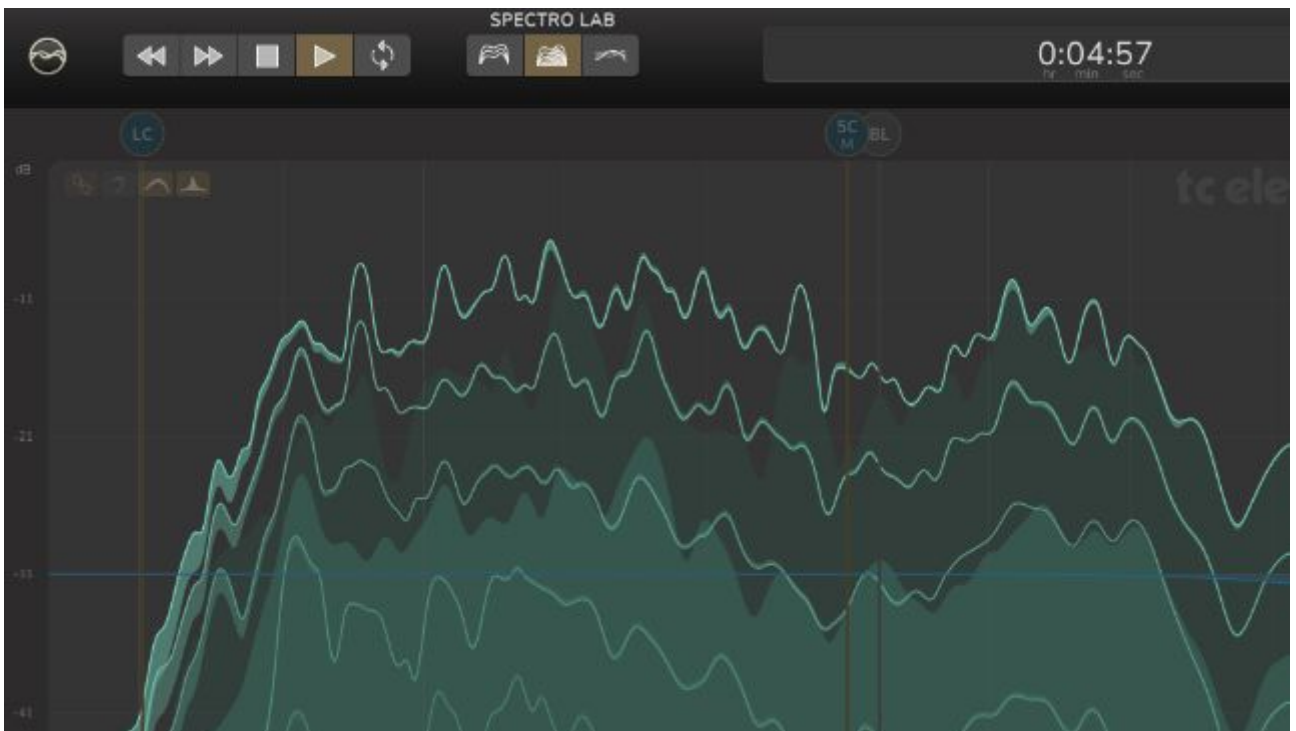
- Average Spectrum (AVG) is the average energy for each frequency calculated on the full track. This information is great for comparing your track against reference tracks within the same music genre and against related album tracks.
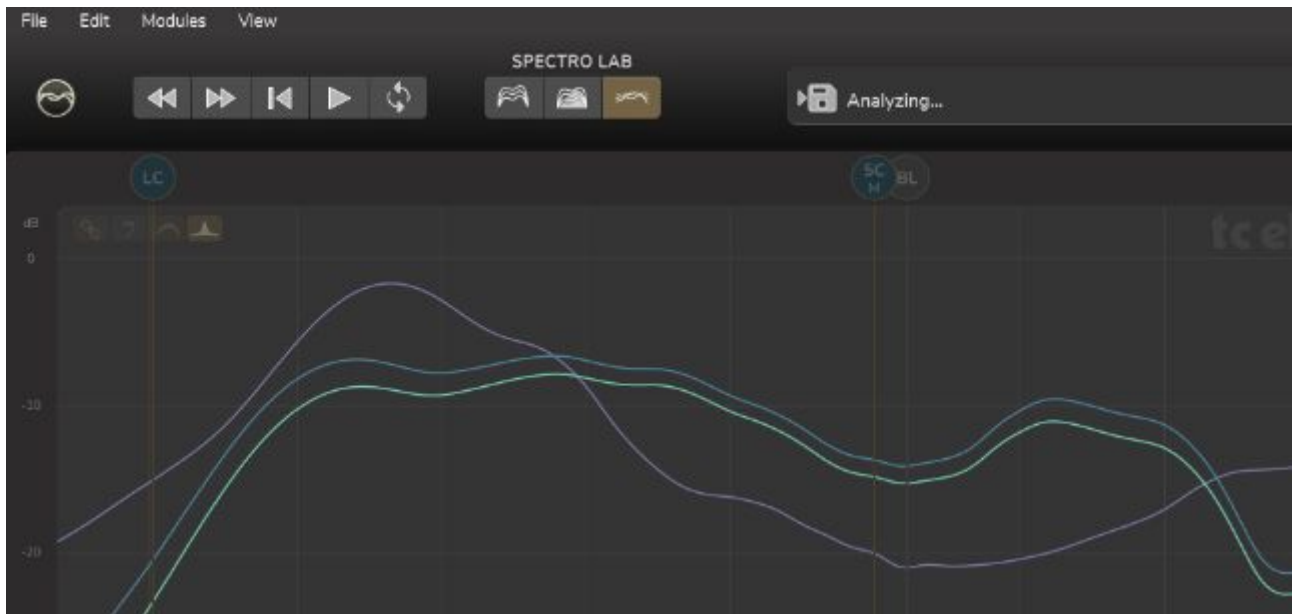
Timeline waveform

The timeline can show either a standard stereo sample-peak waveform or a fast Loudness time view. Use the buttons next to the timeline to change between them. The Loudness View, reflecting what we actually hear, is great for seeing how the music track progresses e.g. if the chorus is "taking off" as expected compared to the verse. The Y-axis will either be in dBFS or LUFS/LKFS.
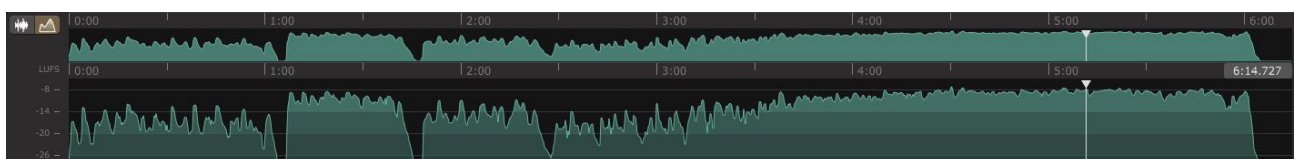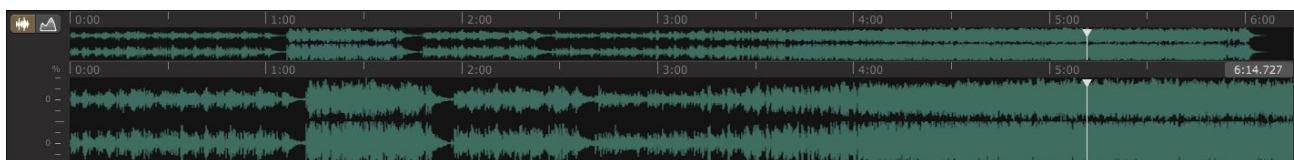
Meter section

The master meter section shows you a variety of things.
- First, there's the Real-time True-Peak PPM meters with high resolution near the top for A (source) and B (processed file or REF files)
- Then there's also the Real-time Short-term Loudness meters for A (source) and B (processed file or REF files)
- The square boxes show the constantly updated full track signal descriptors: Track Loudness, True-Peak Max and PLR (Peak-to-Loudness ratio).
- At the bottom there is a shortcut to either the Limiter Gain parameter or the Output Loudness value depending on which Limiter type is used.

Monitor Section

In the monitor section you have a number of options that only refer to the monitor output of the Finalizer. There is a convenient output fader in case you don't have access to that in your monitor controller.

The Loudness button is a fantastic and really useful option that allows for listening to your source track A, processed track B or REF tracks at equal loudness level. This is important when making critical decisions on the detailed adjustments made on either dynamics or spectrum. Otherwise there is a tendency to preferring the loudest version, which is a route to only to take with great caution.
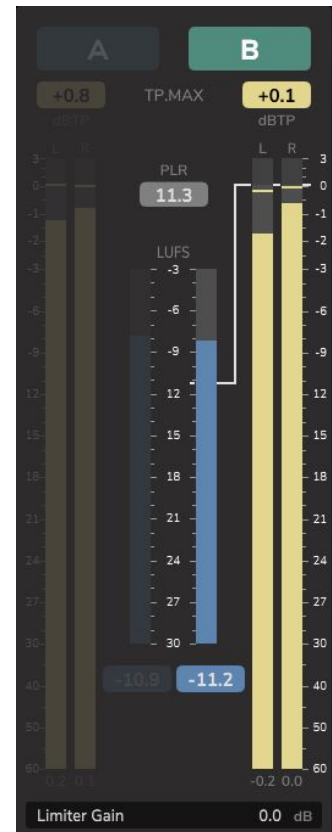
Export master file, save project (audio file, chain, settings, REF links)

When you are done, you export your master file by going to the 'File' tab and selecting 'Print to file'. Remember to also save your project by clicking on 'Save as' – this will include the imported source track, the processing chains, your settings and the links to your selected reference tracks. Note that it is only the directory path to your reference files that is saved. This means that Finalizer will not be able to recall them, if you move them from their current directories.

Save Modules and/or Module Chains to Library

If you want to save a module or a module chain for later use, go to the tab 'Modules' and select either 'Add Module to library' or 'Add Module Chain to library'.

Upload to Finalizer.com for comparison

When logged into your Finalizer.com account, your project audio file (when exported) will automatically be encrypted and securely uploaded to the Finalizer Web Analyzer for dynamic and spectral comparison against relevant music genres or streaming services like iTunes and Spotify plus Billboard's Top 20. You can also upload it manually via the Share Menu.