

EXPOSE

A final quality control measure that will identify any technical issues in your audio.

EXPOSE

SONG 1 - ARTIST

- 8.6 INT
- 0.02 dBTP
- 6.3 DR
- 3.7 LU

SONG 2 - ARTIST

- 8.1 INT
- 1.21 dBTP
- 5.4 DR
- 7.8 LU

SONG 3 - ARTIST

- 6.2 INT
- 0.25 dBTP
- 4.2 DR
- 5.3 LU

DROP FILES HERE
or click to search

<> USER preset

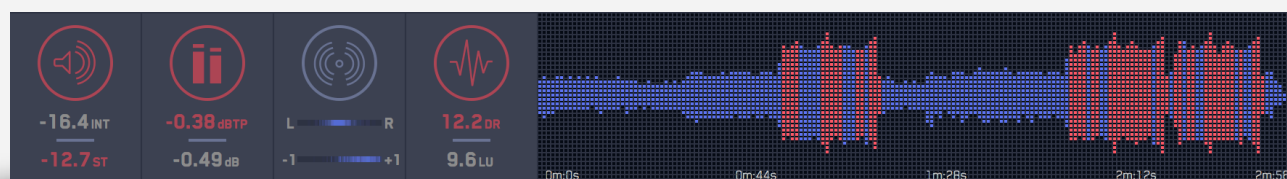
Mastering The Mix



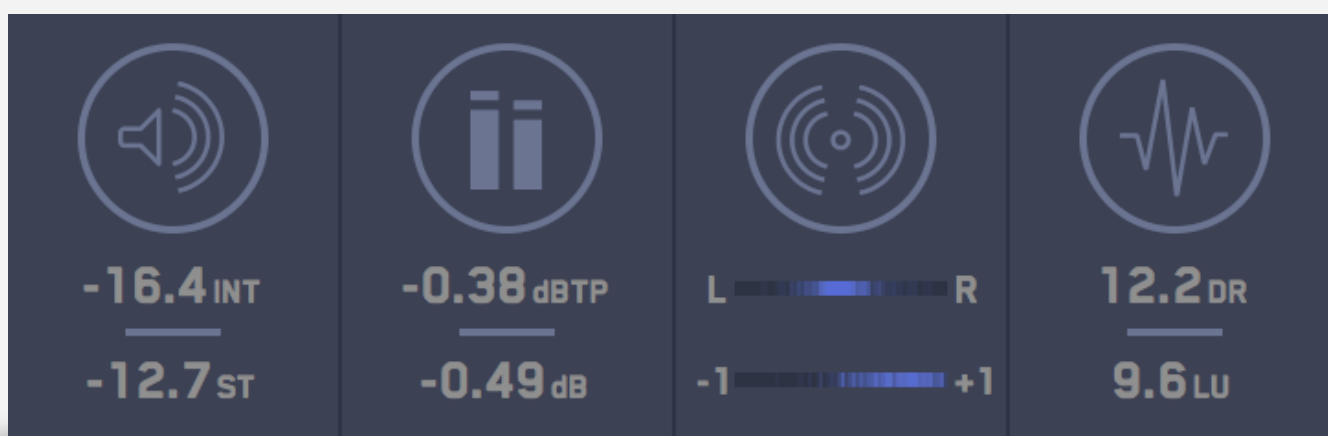
Overview

It's common to see music released with technical issues that negatively affect the listening experience. **EXPOSE** is a stand-alone application that helps you efficiently examine the technical details of your audio.

Let's say you selected the Spotify preset, **EXPOSE** will analyse your audio and pin-point where any technical issues would arise on Spotify. With **EXPOSE**, it takes just a few seconds to make sure you deliver the best listening experience every time.



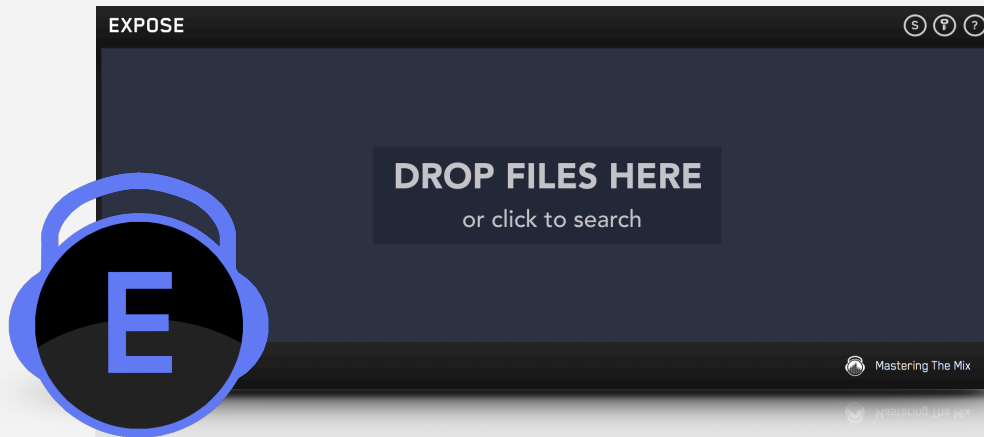
What EXPOSE Will Tell You



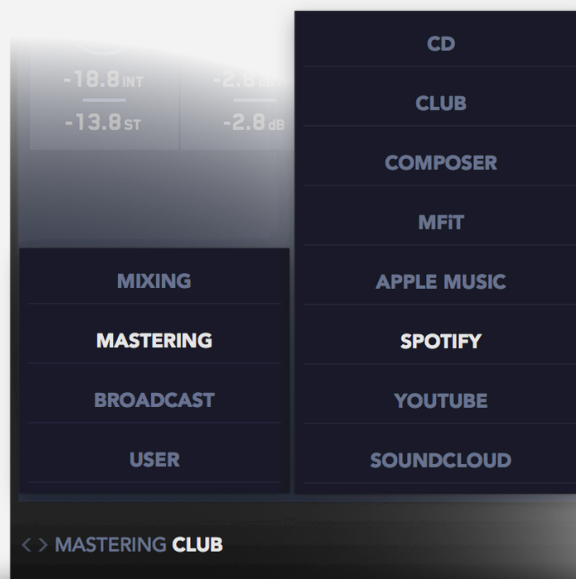
| <u>Loudness</u> | <u>Peak</u> | <u>Stereo Field</u> | <u>Dynamic Range</u> |
|--|---|--|--|
| <ul style="list-style-type: none">• Int LUFS [Integrated LUFS].• ST LUFS [Short Term LUFS]. | <ul style="list-style-type: none">• dBTP [True Peak measured in 'Decibels True Peak'].• dB [Sample Peak measured in 'Decibels']. | <ul style="list-style-type: none">• Left / Right Stereo Spread heat map.• Phase Correlation heat map. | <ul style="list-style-type: none">• Short Term Dynamic Range.• Loudness Range [Measured in Loudness Units]. |

Using EXPOSE

- 1 LOAD A TRACK:** Open the application and drag your audio onto the dashboard. You can load up to 15 tracks at a time.



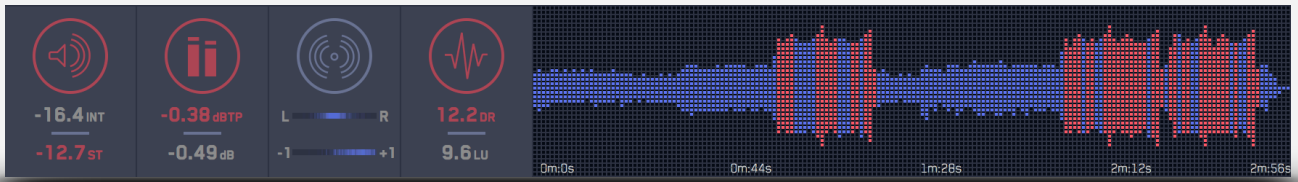
- 2 PRESETS:** In the bottom left corner you'll see the presets. Click on the text and select where your audio will be heard.



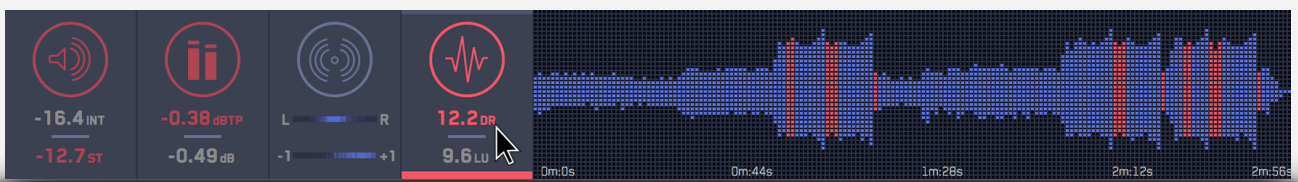
- 3 READINGS:** The four sections give you detailed information about the loudness, peaks, stereo/phase information, and dynamic range of your audio.



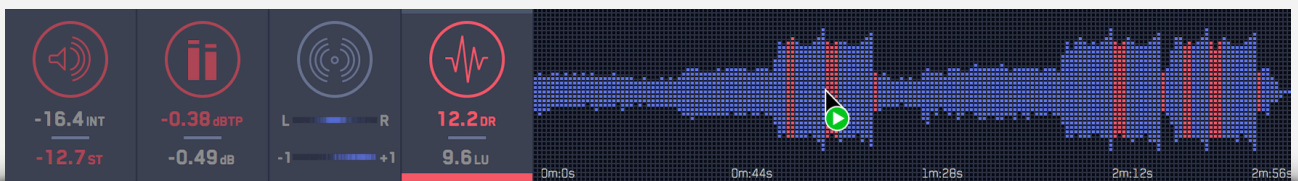
4 IDENTIFY ISSUES: If EXPOSE detects that issues would arise, the section icon and problematic readout will turn red. The waveform will also show you the exact location of the issues.



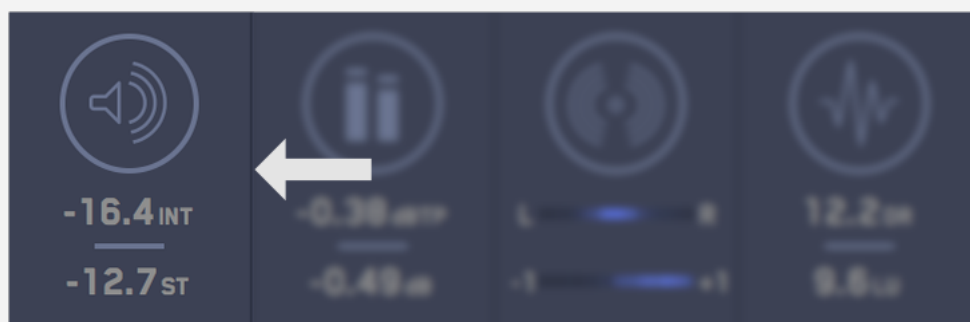
5 ISOLATE ISSUES: Click on one of the numerical readouts to isolate those specific issues on the waveform.



6 PREVIEW AUDIO: You can click on the waveform to preview that part of the audio. Once you've identified what and where the technical issues are you can efficiently resolve them in your DAW. Press space bar to start and stop continuous playback.



LUFS



The LUFS [loudness units relative to full scale] measurement scale is extremely accurate at displaying the perceived loudness of audio material.

Integrated LUFS

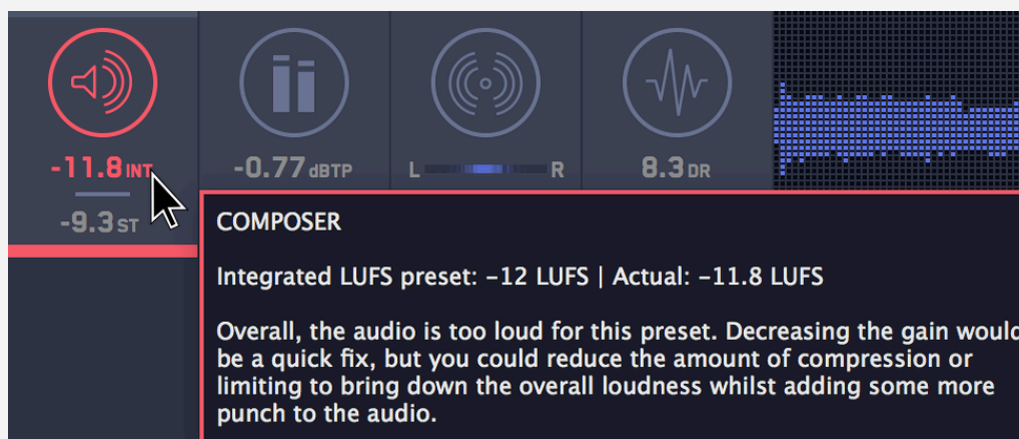
Integrated LUFS (or 'int') is an accumulating calculation that gives you the overall loudness reading of your entire track. The closer to zero your track is, the louder it is. A track that suffered from over-compression during the 'loudness wars' era might see readings around -6 int LUFS. Spotify streams audio at around -14 int LUFS, which is generally considered to be open and dynamic.

Short Term LUFS

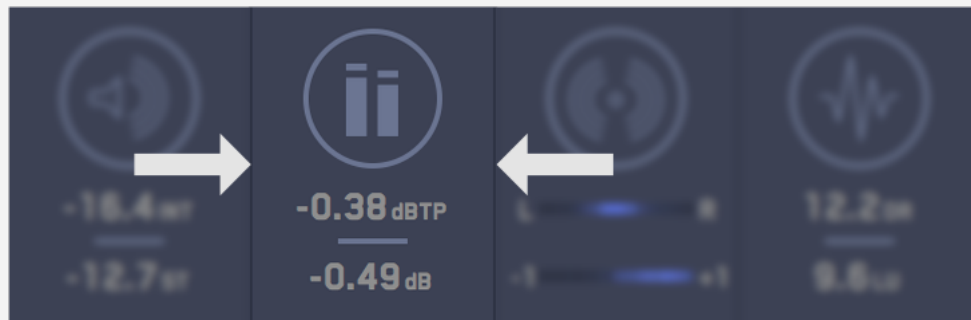
Short Term LUFS (or 'st') in **EXPOSE** takes 3 second snapshots of your track and can show you any potentially over-compressed parts of your track on the waveform. Once your audio breaches around -6 st LUFS, it will affect how full bodied and punchy your audio is. With **EXPOSE** you can efficiently identify if you have this issue in your track before you release your final master.

Understanding the Issues

You can hover your mouse over any readout to see the target value for your selected preset. You will also see preset specific text that will help you fix the issue. For example, if your integrated LUFS value has breached the threshold then you'll see:



Peak

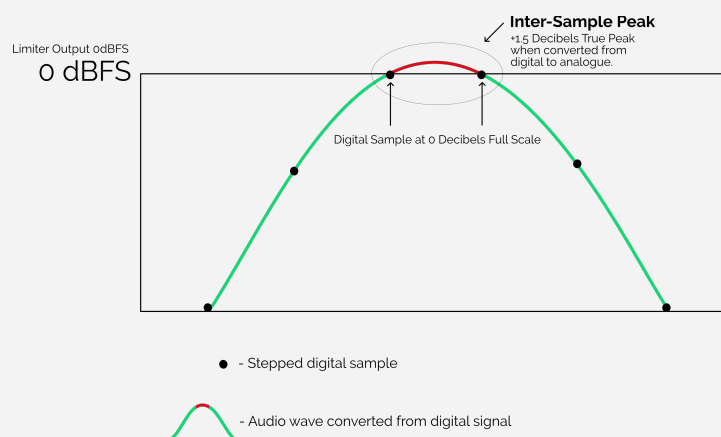


The Peak section gives you two readings: the true peak, measured in dBTP [decibels true peak]. And the sample peak, measured in dB [decibels]

True Peak

The true peak meter in **EXPOSE** displays the absolute peak of an audio's waveform as it will be heard in the analogue realm through speakers. **EXPOSE** uses 16X oversampling.

All music created digitally in a DAW must be converted back to analogue before we can hear it as audio waves. As part of this conversion a reconstruction filter is applied to round off the stepped digital audio signal. This gives us a smooth listening experience. These filters can cause slight changes in the levels of the audio. This can be a problem for the signals that are close to 0dBFS and can cause clipping. A high-end digital to analogue converter has headroom to compensate for this issue, but normal speakers won't be able to compensate for these inter-sample peaks. This means your mix won't sound distorted in the studio, but your peaks might become clipped when played through a laptop, smart phone or home speaker system.



Peak

EXPOSE will give you the sample peak reading for your audio material. This focuses on the peak level of the digital samples of your audio and is the same peak reading as you would find on most DAW meters.

Stereo Field



The stereo field section gives you two heat maps. One for the stereo spread and one for the correlation.

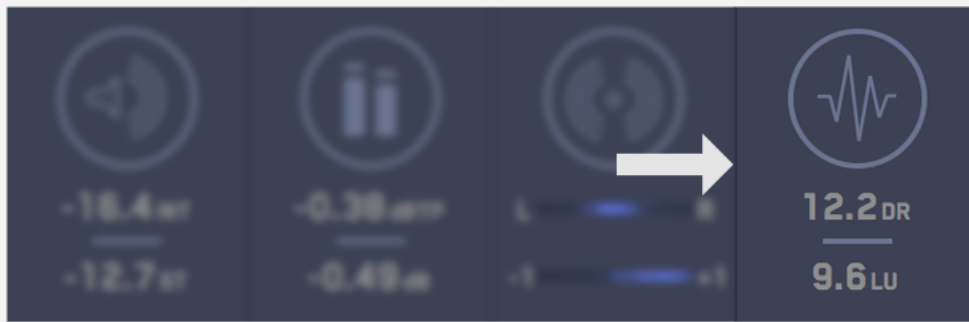
Stereo Spread Heat Map

The **Stereo Spread** heat map will show you where your track is most prominently positioned between the left and right channel. You'll also see if your mix leans excessively to one side at any point in the track. In most scenarios the goal would be to have a fairly central mix without any excessively lopsided moments.

Correlation Heat Map

The **Correlation** heat map shows the degree of similarity between the left and right channels. Readings near +1 indicates a well-balanced mix. If the heat map shows activity that passes the central point towards -1, it indicates that the mix has phase issues. This can cause the mix to fall apart when played back in mono.

Dynamic Range



The DR [dynamic range] reading will give you an insight into the short term dynamics of your track. The Loudness Range [Measured in LU (loudness Units)] will tell you the statistical measure of loudness variation of your entire track.

DR [Dynamic Range]

The **DR** reading looks at the short term punchiness of audio. The **DR** is created using a ratio of the 'short term LUFS' to 'peak level' of your track (like a more accurate approach to the 'crest factor', which uses RMS). The lower the number, the less dynamic range your track has.

Loudness Range [Measured in LU (loudness Units)]

The **Loudness Range** will tell you the statistical measure of loudness variation of your entire track. This long term reading will give you an idea of the difference in volume between the verse, chorus and other sections of your track. Like the DR reading, the lower the number, the less dynamic range your track has.

Settings

EXPOSE comes with presets that will help you understand where problems will arise in different playback platforms, as well as five rename-able 'user preset' slots where you can create your own thresholds. The selected preset is displayed in the bottom left corner of **EXPOSE**. You can click on the arrows to toggle between different presets or you can click on the preset itself to open up a list of all the presets to select which is most relevant for your music.

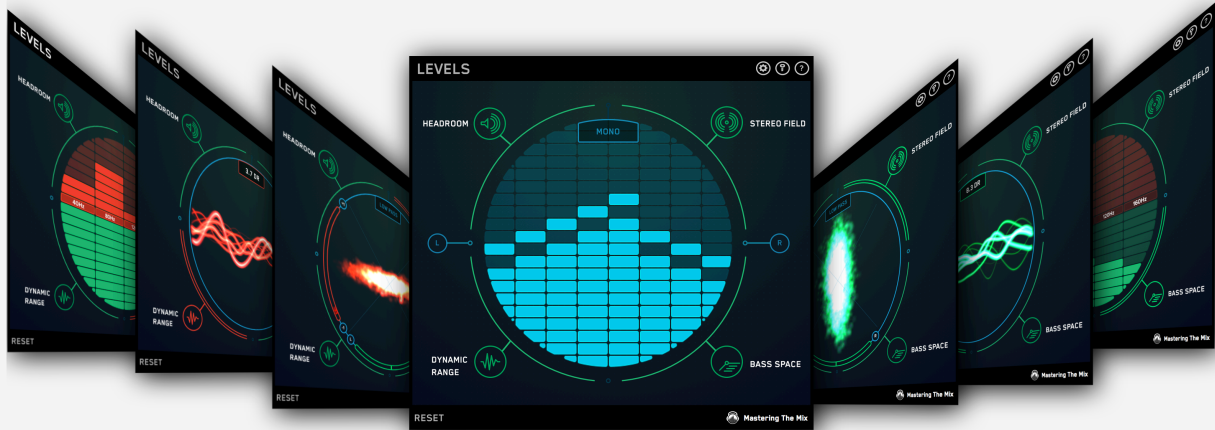
To adjust the thresholds of the presets click the 'S' icon in the top right corner, change the numbers, and click save. If your audio breaches the set threshold, the section and readout will turn red.

Expose Settings

| | INT (LUFS) | ST (LUFS) | dBTP | dB | L/R | Phase | DR | LU (LRA) |
|------------------|------------|-----------|------|------|-----|-------|----|----------|
| MIXING | | | | | | | | |
| Balanced | -15.0 | -12.0 | -5.0 | -6.0 | 0.3 | -0.2 | 11 | 7 |
| Punchy | -15.0 | -13.0 | -5.0 | -6.0 | 0.3 | -0.2 | 13 | 7 |
| Dynamic | -18.0 | -12.0 | -5.0 | -6.0 | 0.3 | -0.2 | 12 | 8 |
| Loud | -12.0 | -9.0 | -5.0 | -6.0 | 0.3 | -0.2 | 9 | 6 |
| | | | | | | | | |
| Mastering | | | | | | | | |
| CD | -9.0 | -7.0 | 0.0 | 0.0 | 0.3 | -0.2 | 9 | 5 |
| Club | -6.0 | -4.0 | 0.0 | 0.0 | 0.3 | -0.2 | 5 | 5 |
| Composer | -12.0 | -9.0 | 0.0 | 0.0 | 0.9 | -0.3 | 5 | 5 |
| MFIT | -11.0 | -9.0 | -1.0 | -1.0 | 0.3 | -0.2 | 9 | 5 |
| Apple Music | -12.0 | -9.0 | -1.0 | -1.0 | 0.3 | -0.2 | 9 | 5 |
| Spotify | -12.0 | -9.0 | -1.0 | -1.0 | 0.3 | -0.2 | 9 | 6 |
| YouTube | -12.0 | -9.0 | -1.0 | -1.0 | 0.3 | -0.2 | 9 | 6 |
| Soundcloud | -8.0 | -6.0 | -1.0 | -1.0 | 0.3 | -0.2 | 8 | 5 |
| | | | | | | | | |
| Broadcast | | | | | | | | |
| EBU R 128 | -23 (±0.5) | -12.0 | -1.0 | -1.0 | 0.5 | -0.2 | 5 | 15 |
| | | | | | | | | |
| USER | | | | | | | | |
| User default | -6.0 | -4.0 | 0.0 | 0.0 | 0.3 | -0.2 | 5 | 5 |

Fixing The Issues

EXPOSE is a final quality control measure that will help you identify any technical issues before you upload your track to your chosen distribution outlet. If you find an issue and wish to make changes to your track, you will need to do so in your DAW. We have a plugin called **LEVELS** (pictured below) that you can use on your master channel to monitor the technical details of your music in real time.



LEVELS comes with a detailed manual and two free eBooks; *Mixing with LEVELS* and *Mastering With LEVELS*. These eBooks will help you fix the technical problems in your mix, so the next time you drop your track into **EXPOSE**, you won't see any red.

