

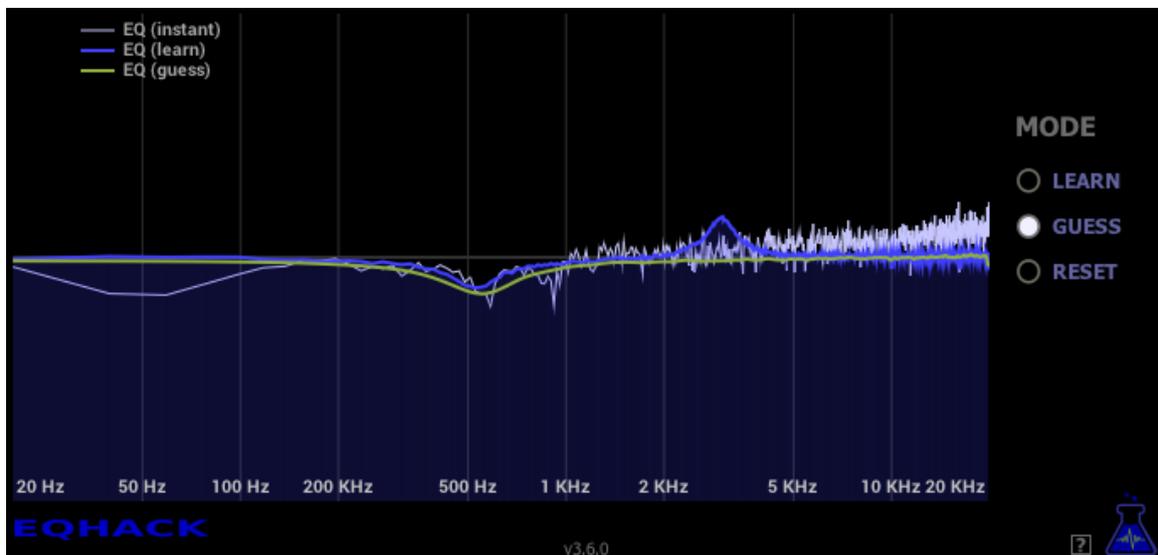
# EQHACK



## DESCRIPTION

**EQHack** is a plugin that enables the possibility to retrieve **visually** and accurately an equalization previously done on an audio file. We must have the original audio file, and the equalized audio file, from which we want to retrieve the equalization.

From these two files, **EQHack** enables the possibility to quickly retrieve the equalization that was made, and enables the possibility to easily setup an equalization plugin of our choice to replicate this equalization for later uses.



## EXAMPLES OF USE

### Analyzing a master

For a musical project with several stakeholders, we have sent an audio file (for example the bounce of a mix) to a third party (for example a mastering studio, or an online mastering website). Then we receive back a modified audio file (for example a mastering proposal). And we'd like to know precisely how the equalization has been modified.

### Analyzing the effect of a plugin

We have a plugin from which we like the frequency processing, but it is a "black box". In other words its parameters don't help to deduce directly the frequency modifications made by the plugin. With **EQHack**, we can retrieve the equalization which is made by the plugin.

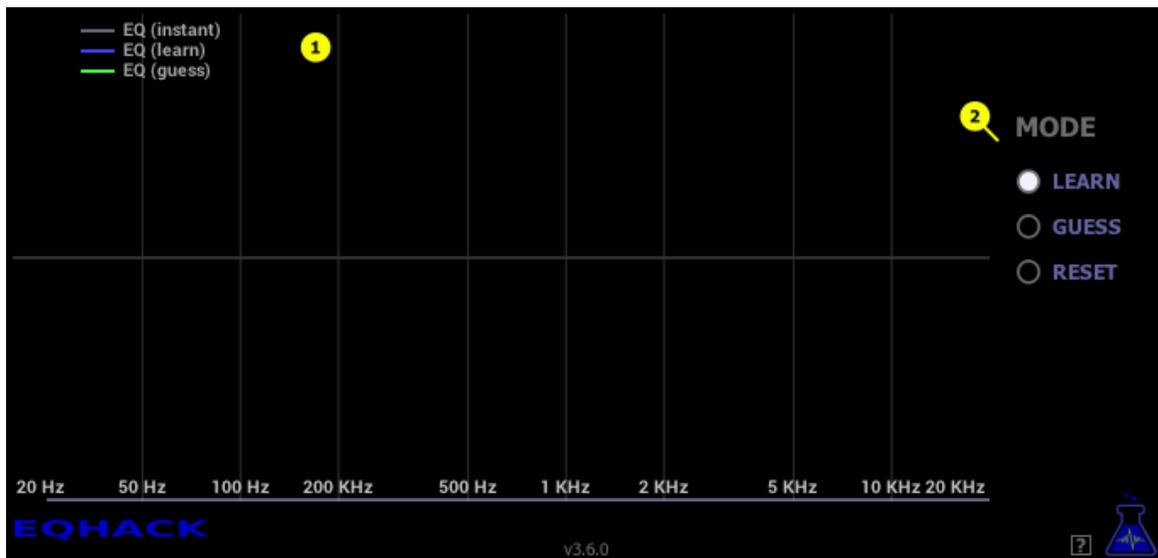
## PRINCIPLE

**Note :** The **EQHack** plugin requires the use of sidechain. Some DAWs may not provide this feature. Please check that the DAW you are using provides this feature before using the plugin.

During the playback of the track, **EQHack** compares the level of each encountered frequency, before and after equalization. As the frequencies are played, the **EQ(LEARN)** curve is constructed and refined.

The sound had to be played during some time, to be sure to have played almost all the frequencies to get an accurate curve.

## USAGE



The use of sidechain is necessary in order to receive at the same time the two signals to compare:

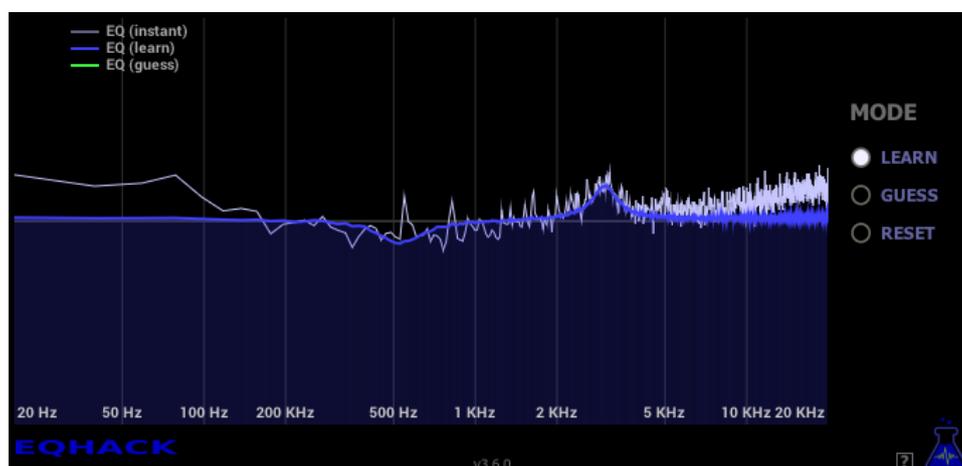
- insert the **EQHack** plugin on the track containing the original file
- make enter the track containing the equalized file get in by the sidechain input

The **GRAPH (1)** displays the following curves:

- **EQ(INSTANT)**: this curve displays the detected equalization at every moment
- **EQ(LEARN)**: this curve displays the equalization that was "learnt" by the plugin during the whole duration of the playback
- **EQ(GUESS)**: this curve enables the possibility to setup and equalization plugin of our choice, and "guess" the equalization we are looking for

The **MODE (2)** parameter is the action we want to do.

To begin, choose the **LEARN** mode, and launch the playback of the track for a moment, to be sure to have played many frequencies during the playback. The plugin builds the **EQ(INSTANT)** curve step by step. When the curve become stable, we can go to the next step.

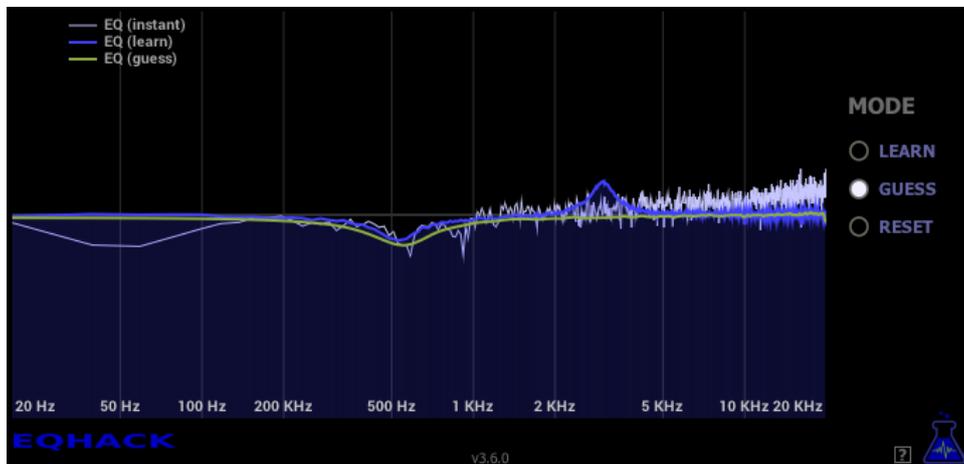


The **GUESS** mode enables the possibility to replicate the equalization we are looking for, with an equalization plugin of our choice. Insert this EQ plugin on the same track, just before the **EQHack** plugin.

The **RESET** action erases all the curves.

Choose the **GUESS** mode, and launch the playback of the track again.

We could define a playback loop in the DAW in order to play the track without stopping, during all the setup of our EQ plugin.



Setup the parameters of the EQ plugin of our choice in order to make match as much as possible the **EQ(GUESS)** curve to the **EQ(LEARN)** curve.

The more the curves are matching, the more the color of the **EQ(GUESS)** curve turns from red to green. When the two curves are matching, it is finished !

The chosen EQ plugin is setup in order to replicate accurately the unknown equalization we were looking for. The **EQHack** plugin can then be possibly removed from the chain, to keep only our EQ plugin with its configuration.



**Result: we have replicated an unknown equalization with an EQ plugin of our choice**