

SAE Parametric Equaliser Training User Guide

Importing an Audio File

Upon launching the SAE Parametric Equaliser Training application, you will be presented with a brief set of instructions and be prompted to 'Drag sound files into the playlist' (Figure 1).

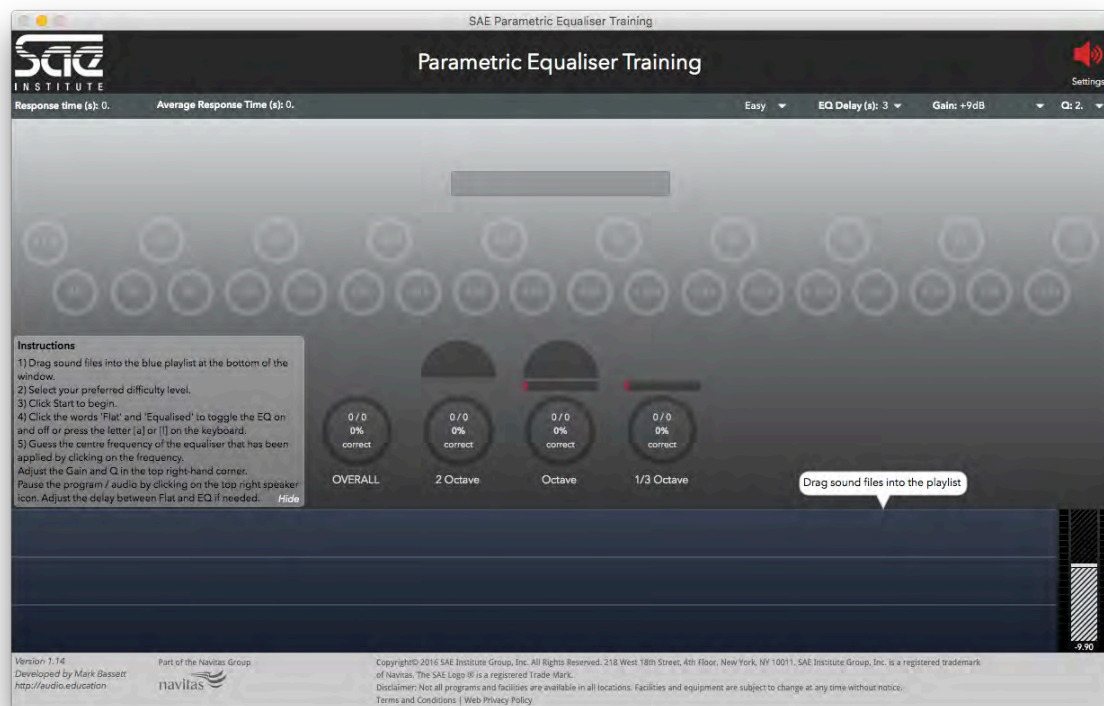


Figure 1: The launch screen.

Close the instructions by clicking on white 'Hide' button in the bottom right corner of the instruction box.

The application supports mono or stereo, .WAV, .AIFF, .MP3, .FLAC, and .M4A audio files. Select one of these file types from your library and drag it into the blue playlist at the bottom of the screen.

Selecting the Difficulty Mode

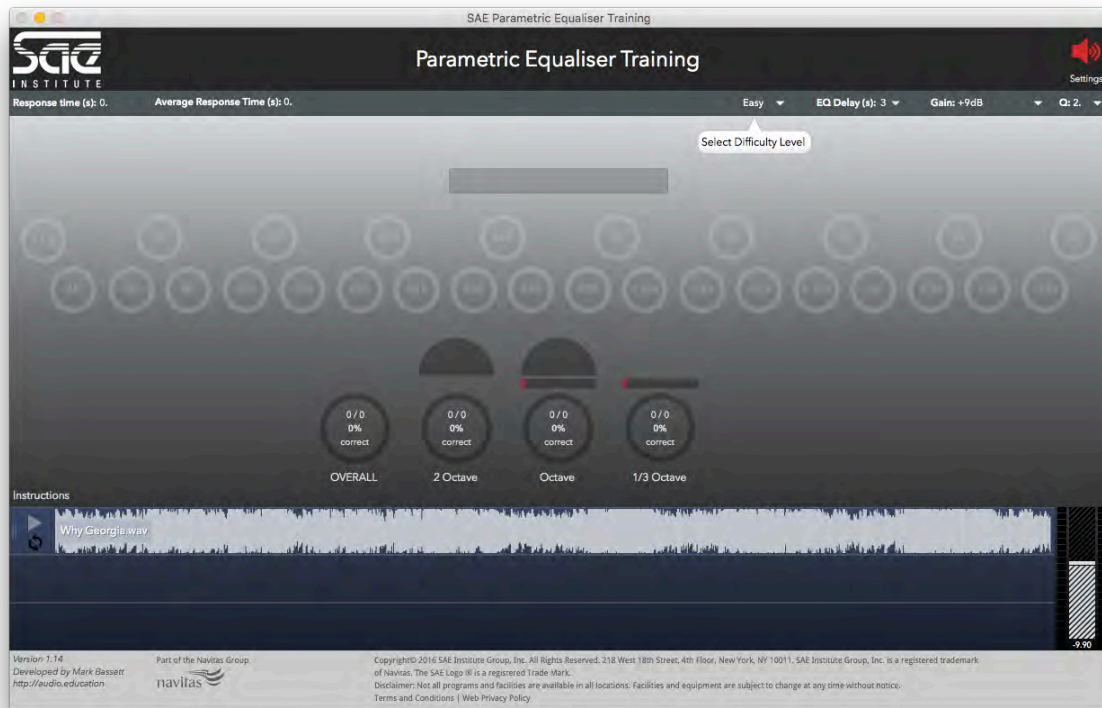


Figure 2: The user is prompted to select the difficulty level.

You will then be prompted to 'Select Difficulty Level' (Figure 2). There are three levels of difficulty available; Easy, Hard and Expert. The selected difficulty level dictates the number of consecutive correct questions needed to move up to the next level, and the number of incorrect questions before you are moved down to the previous level.

- Easy Mode
 - Number of consecutive correct questions needed to level-up = 10
 - Number of incorrect questions to level-down = 10
- Hard Mode
 - Number of consecutive correct questions needed to level-up = 20
 - Number of incorrect questions to level-down = 5
- Expert Mode
 - Number of consecutive correct questions needed to level-up = 30
 - Number of incorrect questions to level-down = 2

Select 'Easy' as the difficulty level.

Setting the Gain

You have the option of adjusting the type of equaliser Gain at any stage during the training. The default is +9dB boosts, however you can select from a wide variety of options, varying in difficulty. Cuts are generally considered to be more difficulty to perceive than boosts. The available options are:

- +9dB boosts
- +6dB boosts
- +3dB boosts
- +1dB boosts
- -9dB cuts
- -6dB cuts
- -3dB cuts
- -1dB cuts
- +/-9dB boosts /cuts
- +/-6dB boosts /cuts
- +/-3dB boosts /cuts
- +/-1dB boosts /cuts
- Random cuts
- Random boosts
- Random (boosts / cuts)

Leave the Gain set to its default value of +9dB.

Setting the Q

You have the option of adjusting the Q factor of the equaliser at any stage during the training. The default is 2, however you can select from a wide variety of options, varying in difficulty. The higher the Q factor, the narrower the bandwidth of the equaliser. The available options are:

- 0.2
- 0.5
- 1.0
- 2.0
- 3.0
- 4.0
- 10

Leave the Q set to its default value of 2.0.

Setting the Equalisation Delay

You have the option of adjusting the amount of time the unprocessed 'Flat' sound is heard for, before the equaliser is applied. The default is 3 seconds. Leave the Q set to its default value of 3, however once you are confident using the program, you may wish to decrease this value.

Starting the Training - Level 1: 2 Octave Frequencies

Click 'Start'. You will be presented with the following screen and Audio playback will commence.

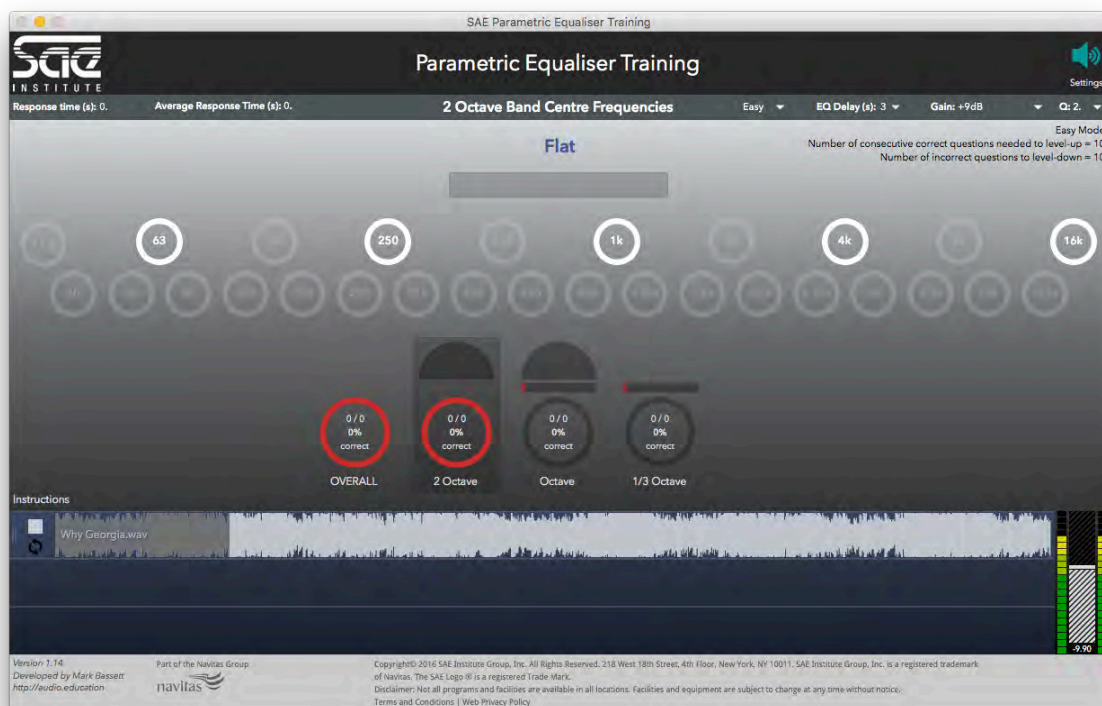


Figure 3: Level 1 Training.

This is Level 1 of the training, it features 5 frequencies, 2 octaves apart. There are 5 frequency buttons displayed in white. The unprocessed signal will be heard first - the word 'Flat' is also displayed in blue at the top of the screen whenever the unprocessed sound is playing. After the default 3 second delay, the equaliser will be applied - the word 'Equalised' will be displayed in red at the top of the screen whenever the equalised sound is playing.

You can switch between the Flat and Equalised versions by clicking on the word 'Flat' or 'Equalised' at the top of the screen, or by pressing the letter [a] or [l] on the keyboard.

After listening to the flat and the equalised versions, your job is to guess the centre frequency of the parametric filter that has been applied, from the 5 frequencies available. If you are correct, the button you clicked will flash green and the word 'Correct' will be displayed. If you are incorrect, the button you clicked will flash red and the correct frequency will flash green. In addition, the word 'Incorrect' will be displayed, followed by 'the correct answer was ...'.

The next question will then be presented.

Performance Statistics

At the bottom of the screen, you will see a series of dials and information regarding your performance (Figure 4).

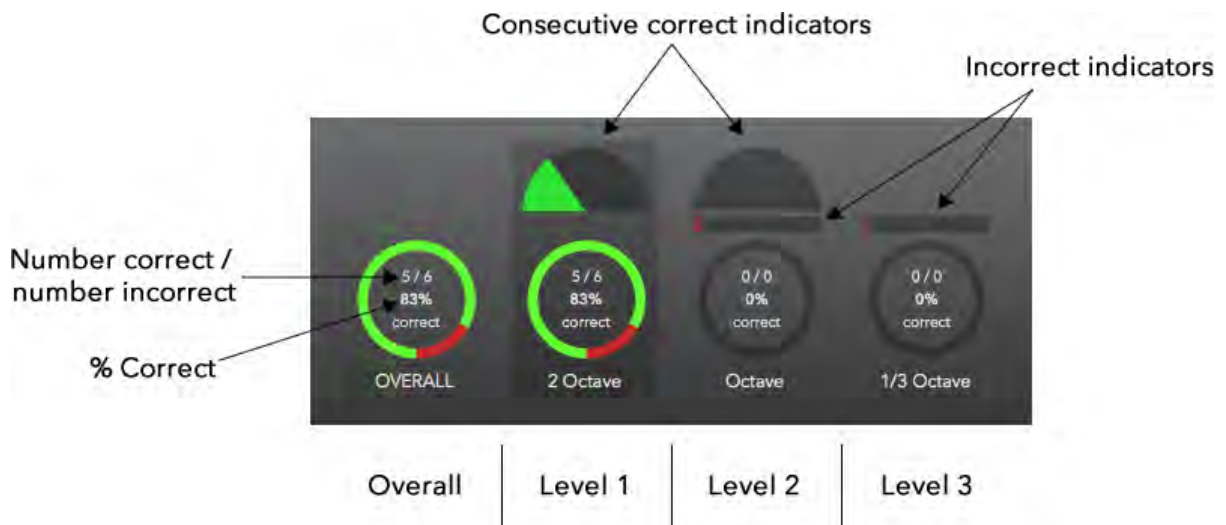


Figure 4: Performance Statistics.

Level Promotion

At the Easy difficulty setting, the number of correct consecutive responses required to 'level-up' is 10. As you answer more and more questions in Level 1 correctly, the 'consecutive level indicator' for Level 1 will start to fill up. Once it reaches full (10 consecutive correct responses), you will be promoted to the next level. A single incorrect response will reset this counter to 0.

Level 2: Octave Frequencies

Once you have successfully answered 10 consecutive questions correctly at Level 1 (Easy difficulty), you will be promoted to Level 2 (Figure 5).

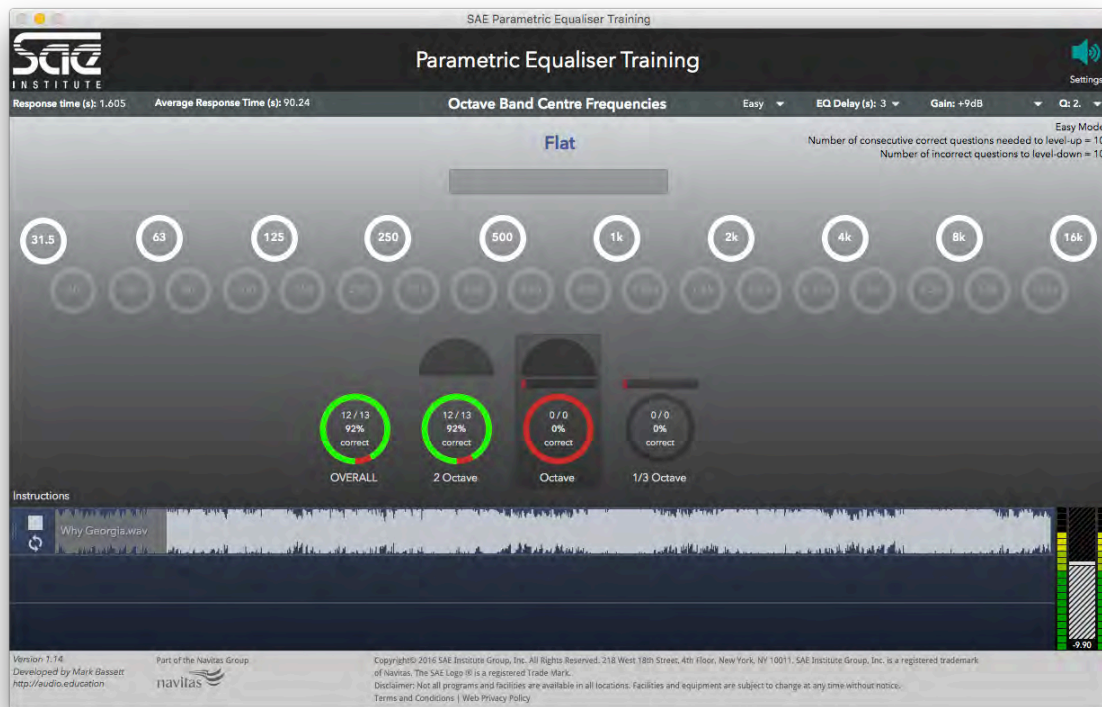


Figure 5: Level 2 Training.

This level of training features 10 frequencies, 1 octave apart. Unlike Level 1, you can be either promoted or demoted from this level. As with the previous level, as you are on the Easy difficulty mode, if you answer 10 consecutive questions correctly, you will be promoted to the next level. However, as soon as the total number of incorrect responses at Level 2 reaches 10 (Easy difficulty), you will be demoted and sent back to repeat Level 1. For each question you answer incorrectly at Level 2, the incorrect indicator for that level (shown in Figure 4) will increase until it fills up, at which point you will be demoted.

Level 3: 1/3 Octave Frequencies

Once you have successfully answered 10 consecutive questions correctly at Level 2 (Easy difficulty), you will be promoted to Level 3 (Figure 6).

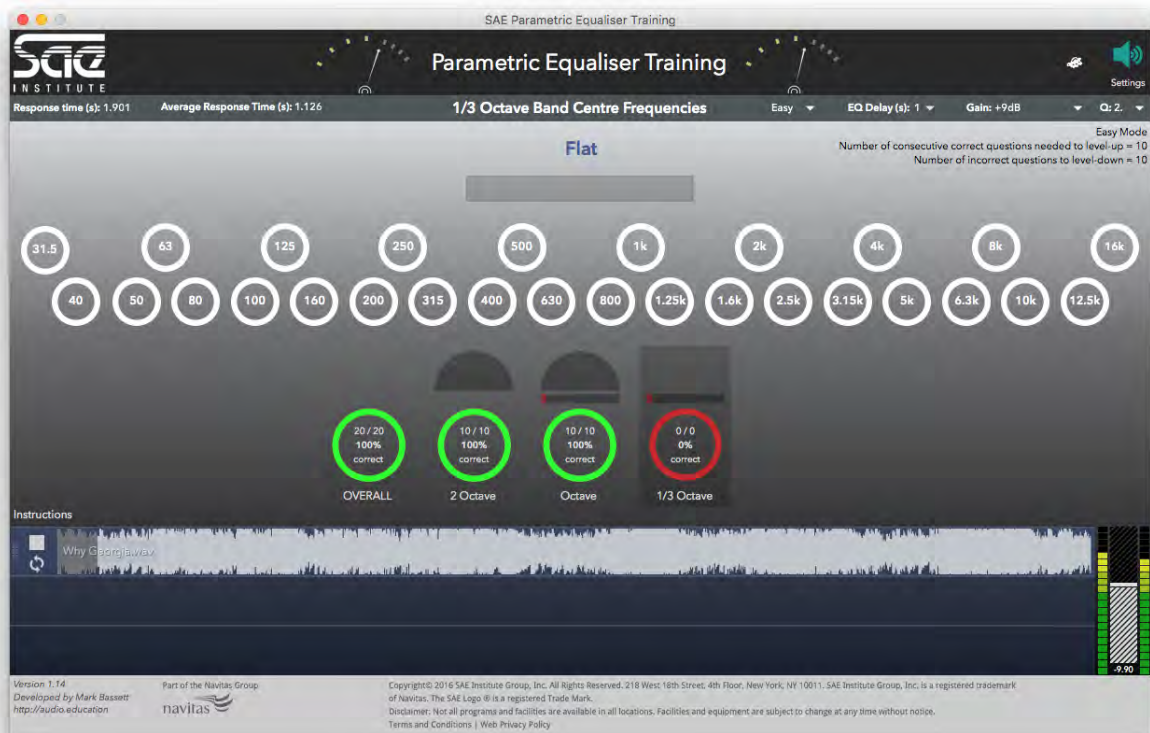


Figure 6: Level 3 Training.

This level of training features 28 frequencies, 1/3 octave apart. The same demotion rules apply to Level 3 as apply to Level 2. You cannot be promoted higher than Level 3.

Adjusting the Playback Level

Adjust the fader located in the bottom right of the window in order to change the playback loudness, or change the volume level on your Mac. Be sure to set the fader at a level where it does not peak when the equaliser is applied.

Pausing the Training / Muting Playback

To pause the training click on the loudspeaker icon located in the top right of the window - this will also mute playback.