

WaveLab 6 - Global Analysis: Loudness Tab

Introduction

What does the “Global analysis” dialog do?

This dialog allows you to perform advanced analysis on your audio to find certain areas with specified properties. It can be used to find problem areas (glitches, distortion), etc., or to check general information such as the pitch of a sound.

How does it work?

When you analyze a section of an audio file, the program scans it and extracts overall information which it displays in the dialog.

However, during analysis, it also “pin-points” sections in the file that meet specific characteristics, for example, sections being very loud or very silent. You can then browse between these points, set markers at these places or zoom in on them.

- The Loudness tab is for finding sections with high amplitude
1. Make a selection in the wave file that you want to process.
 2. Select “Global analysis...” from the Analysis menu.
 3. Click on the Loudness tab and decide whether you want “RMS Power” analysis performed.
 4. Set up the parameters.
 - “Resolution” is the length of audio measured and averaged. If this value is lowered, very short passages of loud/low audio will be detected. When it is raised, the sound will have to be loud/ low for a longer period to result in a hot point.
 - “Threshold...” is used for the recordings where there are pauses, to make sure the average value is calculated correctly. A pause could “fool” the algorithm. Therefore you can set up a value, and all audio below that value will be considered silence and will not be taken into account for the average value.
 - “Maximum number...” and “Minimum time...” are the same as on the Peaks tab.
“Maximum number...” allows you to put restrictions on how many points will be reported. For example, setting this to “1” will make the program report only the highest peak (or one of the peaks with the highest value- if there are several with the same value).
“Minimum time...” lets you set things up so that the points don’t occur too close. Setting this to “1s” will ensure there is always at least a second between reported points.

Result

The Result fields show the following values:

Maximum and Minimum: The level of the highest and lowest points in the analyzed section.

Average: The overall loudness of the whole analyzed section.

Around Cursor: The loudness at the wave cursor position at the time of the analysis.