

Wavelab 6 – What is Smart Bypass?



This function is available from the Tools menu. The main reason for Smart bypass that processing audio often changes the level or loudness of the signal. When comparing the processed signal with the original signal, your ears will be sensitive to this loudness change, which may in turn affect your judgment. If you need to compare the sound of the effect independently from the loudness change, a level correction is required. Smart bypass allows you to compare the original (unprocessed) signal to the processed signal with a level correction applied to it. This function is particularly useful when you are making final level adjustments to a recording, i.e. during mastering. Smart bypass compares the signal at the input of the Master Section to the signal at the output of the Master Section, and adjusts the level accordingly.

Basic operation

Smart bypass works as follows:

1. Open the “Smart bypass” dialog from the Tools menu.
When the dialog opens, it monitors the processed audio (the output of the Master Section) by default.
2. The three Play options allow you select what to monitor; the original (unprocessed) audio, the processed audio plus level correction or the processed audio.
3. You can select between three modes of level correction: Match Peaks, Match loudness (RMS) or Custom correction.
These are explained in the table below.
4. Specify a time range to be analyzed in the Time field.
5. Play back the audio and wait for the analysis to complete (i.e. the time specified in the previous step).

6. Click the “Update gains” button.

Depending on the selected correction method, the level correction that will be applied is shown below the corresponding button.

7. Now you can switch between the three Play mode options to compare between the processed audio with level correction, the processed audio without level correction and the unprocessed signal.

8. If you should change the analysis time or start playback from another position you have to wait for the set time and then click the “Update gains” button again to update the analysis (i.e. repeat steps 5 and 6).

Dialog items

The Smart Bypass dialog contains the following items:

Item	Description
Play – Original audio	This monitors the unprocessed signal at the Master Section input.
Play – Processed audio + level correction	This monitors the signal at the Master Section output plus the applied level correction. To listen to the corrected level requires that you have clicked the “Update gains” button first.
Play – Processed audio	This monitors the signal at the Master Section output without level correction.
Level correction – Match peaks	If this is selected, the output signal will be level-corrected so that the peak levels of the processed signal and the original signal match.
Level correction – Match loudness	If this is selected the output signal will be level-corrected so that the loudness of the processed signal and the original signal match. This is the overall most useful mode, as it works similarly to how the ear perceives loudness.
Level correction – Time	This determines the length of the level analysis.
Level correction – Update gains	This will update the current analysis. You have to play back the audio for at least as long as the set “Time” before clicking this button. If you change the level correction parameters, you have to click “Update gains” again to refresh the analysis.
Level correction – Custom correction	This allows you to set a custom level compensation (no analysis).