

Does the Shelf really make a difference ?

The following two screen shots were taken of two waveforms of the exact same piece of music which was mixed from multitrack to digital audio tape (or DAT). The mixes were run to two identical dat machines: one with the shelf under it, and the other without. The waveform has been blown up so far that one sample ($1/44100^{\text{th}}$ of a second) is about $1/8^{\text{th}}$ of an inch long. The sound editing software used in this demonstration is Sonic Solutions, which is well known in the professional audio world as the standard for audio editing.

Note the differences between the two waveforms: the one without the shelf looks as if the peaks of transients have been distorted or cut off. In other places it looks as if there are resonations in the non shelf waveform that are absent with the shelf. These are of course only interpretations of the waveforms, it is hard to tell what the differences really mean. The point is that there is a difference. When you listen to the shelf, your ears can point out the audible difference. Here is the proof that your ears really aren't tricking you, something really is happening!

