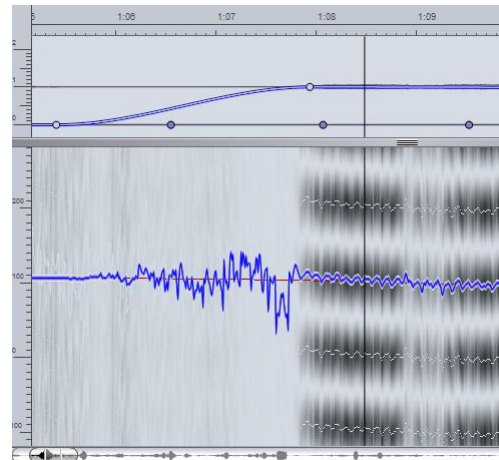


Wow & Flutter Reduction

One problem of analogue audio recording is rapid changes in the recording or play-back speed; such changes arise, for example, through the slightest circularity errors in the drive shaft of the tape machine. The fluctuations of pitch arising in this way are called „wow and flutter“.

First of all, listen to the **unprocessed live recording of the beginning of Dvorak's Cello Concerto.**

Only recently has a possibility been created to reduce, or entirely eliminate, such artefacts by technical means. Now listen to **the result of this processing.**



As with all possibilities of audio-restoration, blessings and curses also lie very close together here, for only the precise adjustment of the parameters of the special software being used will show such results. Incorrectly adjusted parameters, however, can lead to anything ranging from subtle distortions to drastic manipulations of the originals. Since these parameters must be reset from second to second, the use of such software also means a high risk for the recording; one must distinguish, for example, between a „flutter“ due to technical reasons and a vibrato desired for artistic reasons.

The sound engineer needs a trained ear, scrupulous concentration and a sensitive manner of working in order to use the possibilities of such software in a meaningful way.