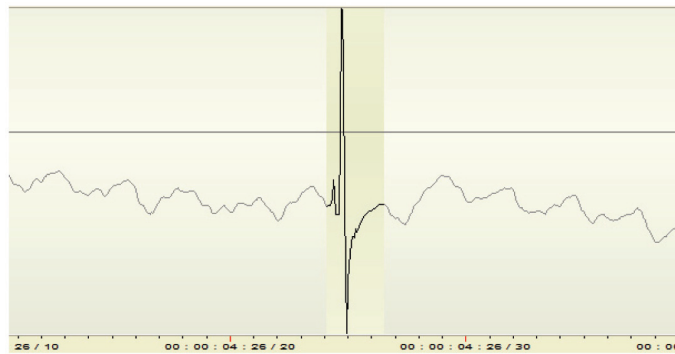




## Removing long clicks & scratches...

### CAM15: Manual declick

Extended scratches and clicks are encountered on many audio media - film, tape or disk, whether analogue or digital. It may not be possible to restore these using real-time declickers (which are optimised for high densities of short clicks) because these disturbances are too long for the algorithms to handle.



#### The solution

Manual Declick is optimised for long clicks and scratches and is ideal for restoring audio that suffers from extended scratches and other disturbances. It allows users to specify the audio that constitutes the unwanted noise, and its two algorithms will remove noises such as those found on optical soundtracks, as well as drop-outs and extended digital errors. Simply mark the offending signal, and Manual Declick will eliminate the problem.

#### Manual Declick A

The general purpose manual declicker; the optimal choice for many situations.

#### Manual Declick B

Removing extended clicks in the presence of high levels of background noise can lead to a hole in the background, even though the music or speech signal is reconstructed correctly. CEDAR's Manual Declick 'B' algorithm maintains the 'atmos', even when restoring the longest and most intractable clicks and other impulses.

The maximum scratch length handled is a huge 2,048 samples at 44.1kHz, or 4,096 samples at 96kHz.

#### Removing the most difficult scratches and clicks