

## **WaveLab for Windows 95 and NT**

### **STEINBERG SETS NEW STANDARDS FOR PROFESSIONAL AUDIO EDITING FOR MICROSOFT WINDOWS 95 AND NT**

The PC has now reached a technological level which makes it ideal for creative audio applications. With the Windows 95 operating system you have the power - through multitasking and 32-bit processing - to carry out even the most intensive editing and processing. The time was right for bringing out an entirely new program on this particular platform.

WaveLab is a native 32-bit Windows 95/NT application. WaveLab makes full use of the latest developments in 32 bit technology. We have made no compromises in respect to the old Windows 3.1 architecture. WaveLab is the fastest Audio Editor currently available on the market. WaveLab utilizes any Windows compatible Sound Card and is also designed with Digidesign Session 8 PC users in mind.

WaveLab for Windows is the first program on the market that integrates an Audio database for managing audio files on multiple media. It is also the first program on the PC that incorporates high-quality Time Stretching / Pitch Shifting using the same algorithms as the famous Steinberg Timebandit program on the Mac.

WaveLab supports true multitasking: You can edit, process, undo/redo, load and save while the file is being played back.

WaveLab is the only Audio editor that provides unlimited and instantaneous Undo and Redo!

Basic editing operations like copy/paste are equally fast, no matter if the file contains five seconds or one hour worth of audio!

WaveLab has a truly Windows 95 compliant graphic user interface.

Other features include the ability to simultaneously process an unlimited number of files (batch processing) and advanced Spectrum analysis.

#### **FEATURE SET**

This feature set list is by no mean complete but serves to give you a first guidance thru the program.

##### **File formats:**

Support WAV and AIFF file formats. One can transparently cut/copy/paste between formats without any conversion stage, even between 8 and 16 bits files, mono and stereo files.

##### **User Interface**

Windows 95 compliant. Features tool bars, status bar, tool boxes, tabbed dialogs, spin controls, sliders, progress bars, context menus, tool tips, Explorer-like windows, multi-column lists, long file names, etc. WaveLab also provides some exclusive extensions such as popup sliders and foldable dialogs.

User interface switchable between English, French and German.

Window layout is saved on exit and restored when the program is run next time.

Multi view concept: the same wave can be displayed in any number of windows with different zooms, scales, and display options.

Most dialogs are modeless which means they can be left open. This lets you switch between operations very quickly (eg. process/play/undo/redo).

Stereo overview: the main editing window can be split to simultaneously display detailed view and overview of the audio data. You can zoom in and customise the overview.

Advanced zooming: Vertical and horizontal Zoom in and out. Deep zoom to up to 32 screen pixels per

sample. Lightning fast zooming.

Horizontal and vertical scrolling. Real time screen update. Scrolling on playback.

Vertical Selection available (to select a level range).

View Snapshots: up to 8 sample views per audio file can be stored/recalled with a single mouse click.

Customisable display: all colours can be redefined. Graphic elements such as time and level scales, axis, etc., can be displayed or hidden. Preset styles are provided.

Very accurate time scale. Origin can be redefined. Independent for each view. Various time units available. Level scale in % or dB.

### **On-line help**

Windows 95 context help in all dialogs: click on any part of a dialog to get the corresponding help. Context help for menu options too.

"Tips of the day" are displayed when the program opens.

### **Basic editing**

Disk based editor: requires little RAM to run, even for huge files. Advanced 32 bit caching technology provides unsurpassed disk access speed.

True 32 bit multitasking. All editing, processing, loading, saving can be done while the music is playing.

Extended Stereo Mode: WaveLab's exclusive "Dual mono" mode lets you edit pairs of mono files exactly as a stereo file. Load, save and do any processing on the 2 mono files in one operation just as if you were operating on a single stereo file. Great for Session 8 users.

Full stereo editor (eg. cut/insert on a single channel of a stereo file, unlike in any other editor currently available).

Unlimited number of Undos/Redos for all operations. Undoing/Redoing is instantaneous. Moreover, it consumes almost no RAM or disk memory for the most common operations such as cut/copy/paste/silence. For immediate comparison Undo/Redo can be performed while the music plays.

Instantaneous Cut/copy/Paste/Delete/Silence operations. Independent of file size! No data is moved on disk.

Various paste modes: insert, overlap, mix, multi-paste.

Thanks to graphic waveform caching, reopening files is instantaneous, no matter what size the file has.

Drag and drop editing: Simply drag wave segments to copy/move/paste/delete/crossfade.

Clipboard data can be made visible and edited, as can any other wave file.

Selecting/Cut/Copy/Paste works almost as with a text editor, with the mouse or the keyboard.

Multiple files can be opened simultaneously. Open/re-open pairs of mono files in just one operation.

Customisable zero-crossing for selection and markers.

### **Fade In/Out, Crossfades**

User definable logarithmic slopes. Graphic display.

### **Time Stretching**

Change the duration of a recording without affecting the pitch. High speed and high quality thanks to unique algorithms (best quality available on the PC!). Musician-friendly handling. Tempo calculator integrated.

### **Pitch correction**

Change the pitch of a recording with or without affecting the duration (and all cases in between). High speed and high quality thanks to unique algorithms (best quality available on the PC!).

### **Harmonizer**

Creates polyphonic chords with up to 16 voices from one audio file. Based on a mono file you can create a stereo multiple voice file with individual pan adjustment for each voice. Presets can be saved.

### **Hi-fi Chorus**

High quality chorus based on our pitch correction engine. Up to 100 chorus voices can be stacked.

Create stereo chorus files from mono files. Presets can be saved.

### **Parametric Equalizer**

Fast high quality low-noise 3 band equalizer (low shelf, bell and high shelf). Frequency, gain and Q factor can be adjusted. Colour display of frequency / boost response curve. Presets can be saved.

### **Dynamics processor**

You can graphically configure compressors, expanders, limiters, gates or any combination of these. Up to 200 thresholds can be defined. Auto mode, expert mode and many useful options are provided.

Presets can be saved.

#### **Other processors**

DC offset eliminator, sample rate converter, normalizer with selectable level, gain adjuster, phase inverter, time inverter, channels swapper.

#### **File Format converter**

Convert between mono and stereo, 8 and 16 bit, different sample rates, WAV and AIFF, all in one operation.

#### **Batch processor**

Lets you apply any process sequence (eg. EQ, time compression, format conversion, etc.) to any number of files. Files already open can also be treated. Customisable file renaming and many options available. Presets can be saved.

#### **Markers**

Any number of markers can be defined. Marker appearance can be customised. Markers can be accessed in a list where they are sorted by position or name. Exclusive "magnetic" setting for best adjustment of Audio regions.

#### **AudioAccess database**

The first and only 32-bit Audio database available on the PC. Stores and organises references to all audio files residing on your hard-disk(s), CD-ROMs and other removable media.

Disks can be scanned to find specific files.

Audio files can be organised in hierarchic groups (eg. Sound Effects / Nature / Animal / Birds). Various Audio file search criteria: by size, date, attributes (mono/stereo/resolution/rate/format), comment, keywords, group, disk location. Search presets can be saved.

Audio files can be displayed as a list or as icons (similar to the Windows 95 Explorer).

Extremely fast database access thanks to a proprietary 32 bit technology implementation.

Multiple databases can be open at the same time. Drag and drop editing. Explorer-like user interface.

#### **Projects**

A project is a set of audio files that you can arrange in a window for quick access. Projects retain wave window layouts: when re-opening a project you will find the same wave window layout again.

#### **Recording**

Accurate Vu-Meters. Integrated audio source mixer.

#### **Spectrum analysis**

The audio spectrum can be displayed as 3D graphics. Extended viewing options with linear and logarithmic scales, colour and grey scales, customisable viewing angles, auto zoom, multi-view, frequency range selection. Optimised 32-bit FFT for best performances.

#### **Sounds**

WaveLab comes on a CD with 200 Megabytes of original top quality sounds.

### **PERFORMANCES**

The following benchmarks have been performed on a PC with a Pentium 90 processor and a 1 GigaByte Hard Disk running Windows 95 as its operating system.

#### **Actions were performed using a 16 bit, 44.1 kHz, Stereo file with a file size of 33 Megabytes equalling 3 min 7 s of sound:**

Open Soundfile - The first time: **40,7 s**

Open Soundfile - The next times: **0,5 s**

Cut Soundfile (1min.): **0,007 s**

Undo Cut: **0,003 s**

Insert Data (1min.): **0,007 s**

Transform entire left channel to stereo file: **0,220 s**

Undo then Redo any action: **0,003 s + 0,003 s**

#### **Actions performed using a 16 bit, 44.1 kHz, Stereo file with a file size of 1 Megabyte equalling 6,5 s of sound:**

Zoom In and Out in 20 steps, to perform 40 screen redraws (640 x 480 Display): **3,9 s**

High Quality Time Stretching (110 %): **2,40 s**  
High Quality Pitch Correction by keeping length (1 halftone): **2,45 s**  
Low Noise Parametric EQ (bass boost): **2,48 s**  
Frequency Analysis (FFT): **2,05 s**

## **SYSTEM REQUIREMENTS**

WaveLab for Windows requires the following computer power:

Intel 486 or Pentium processor.  
Minimum of 8 Mb RAM.  
Windows 95 or Windows NT 3.51.  
A harddisk suitable for Audio recording.  
A Windows-compatible Sound Card.

## **TARGET GROUPS**

WaveLab will interest everyone involved in handling Audio files in a Windows environment. Typical use could be:

Music Production  
Sample Editing  
Radio Production  
Dialogue Editing  
Multimedia Production  
Mastering  
And of course, many other uses.

## **AVAILABILITY**

Shipments have already begun.

## **DEMO VERSION**

A complete demo version is available on CompuServe (GO STEINBERG) as well as on Internet at <http://www.steinberg-us.com>

###

Wavelab is a trademark of Steinberg Soft und Hardware GmbH. All other product and company names are trademarks of their respective holders.

All specifications subject to change without notice.

Steinberg Soft- und Hardware GmbH 1996

All rights reserved.

Steinberg is the market leading developer of a broad range of MIDI, Audio and Multimedia programs for Windows, Macintosh, Silicon Graphics and Atari computers. The award winning Cubase program is used by enthusiasts, students, professional musicians, recording studios and multimedia production facilities throughout the world. Founded in 1984, Steinberg's head office is in Hamburg, Germany with further offices in Paris, France and Chatsworth CA USA.