

# Steinberg Wavelab v4

Wavelab turns 4 and Adam McElnea is there to celebrate.

Since its inception in 1995, Wavelab has seen some considerable additions to its feature set and (now) its appearance. We've seen sampler support introduced in v2.0 and then the formidable introduction of the Audio Montage feature in Wavelab v3.0. Now Wavelab v4.0 continues Steinberg's goal of becoming the most comprehensive PC-based audio editor available. Boasting a new user interface, increased file format support, data and audio CD burning and label creation, enhanced archiving, additional real-time analysis tools and packaged high-quality virtual effect processors, v4's new feature highlights are not to be sneezed at.

## Lab Test

I must begin by acknowledging the work gone into the 642-page manual – nice job Steinberg. As with any software install I recommend reading (*at the very least*) the fundamental 'getting started' section... followed by the remaining 637 pages at your leisure! After taking a few minutes to familiarise myself with that part of the manual, installation was a breeze. With no

serial numbers required, the upgrade easily installed 'over the top' of my existing v3 application while still preserving my original settings and presets. However, the original install CD should be kept nearby, as it maybe required for future authorisation confirmation. It's also important to

note that Wavelab 4 will not run on Windows 95 or NT 4.0 platforms – Windows XP is the recommended platform.

Once the installation was finalised my soundcard was immediately recognised, drivers were chosen (v4 now supports ASIO, WDM and MME) and I was up and running. The first noticeable difference can be observed in the graphics. Although the overall feel of Wavelab 3 is preserved, the slick new graphics take v4 to a new level. Wavelab 4 now incorporates new 'metallic style' front panels, enhanced icons and buttons, outlined waveforms with colour-selective graduated backgrounds and intuitive workspace layouts. Version 4's user-friendliness and 'handling' has also been dramatically improved. The online help files have been re-designed, and many menus and layouts now contain multiple docking features, associated icons, keyboard shortcuts and customisable options. So let's look a little closer...

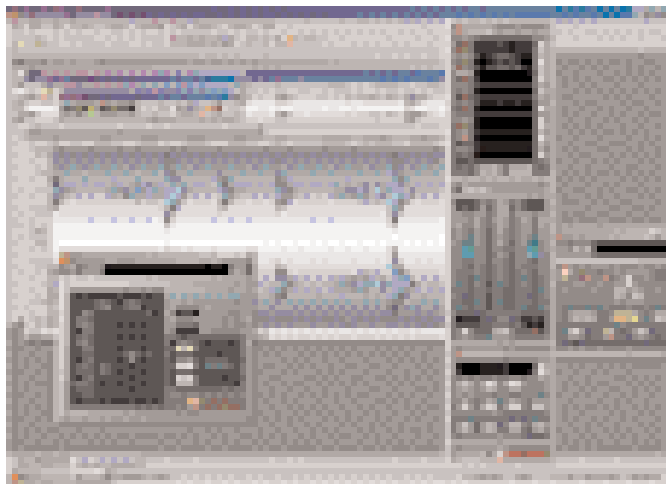
## Master Section & Analysis

One of the most noticeable makeovers has occurred in the Master Section. Predominately used for selecting and applying real-time plug-ins, adjusting master levels and applying dither, the Master Section now offers three collapsible panes – thus better utilising screen real estate. Plug-in support has grown from six available slots to eight, and you can now freely drag and drop loaded effects in different orders... in real time! Furthermore, there are now provisions for extensive post-master fader dithering options and/or applying a post-master fader effect.

Wavelab 4 happily operates in the world of 32-bit (floating point) internal processing and the Dithering function (through reducing quantisation errors) ensures that this audio quality is maintained when burning Red Book (16-bit) CDs or rendering files. Version 4 offers a wider choice of dither algorithms than before, including Apogee's UV22HR (High Resolution) algorithm, which is a real 'plus'. I recall when Apogee's original UV22 stand-alone hardware unit was released and would have set you back an arm and a leg (or at the very least about eight to ten grand!), but now you get the new and improved software version thrown in for free!

A Render option has also been added for bouncing down the audio output to a file on disk – great for saving on processing power and mixing down effected files. Output meters, a mono button and a dropout indicator are also present.

Wavelab's analysis functions have been enhanced, with new options available for detailed metering of monitor level, phase, pan, bit depths and spectrum (to name a few). A dedicated toolbar provides access to the individual metering functions that can be launched in customisable floating windows. Preset 'Config' views can be stored for



## Some Additional Enhancements

*Optional Audio Files now saved in the background while you work on other projects – ie. Enhanced multi-tasking.*

*Multiple instances of Wavelab can now be opened from the Tools menu.*

*Enhanced batch processing of multiple files including a 'Meta Leveler' plug-in for raising multiple file levels by the same amount, without clipping.*

*Enhanced AutoSplit tools – batch processing, converting stereo to dual mono, and removing silence from 'head and tail'.*

*New pitch identification and correction dialogs.*

*Loop Tone Equaliser for smoother sampler-based looping.*

*Introduced 'Plan Schemes' for managing multiple work environments.*

convenience. Version 3 included such analysis tools as a sixty-band real-time spectrum meter, Peak and RMS (VU) meters, Phase Meter, Error Rate Checker, 3D non real-time FFT (Fast Fourier Transform) analysis and on-board multi-format tone generator, and as you'd expect, Wavelab 4 packs an even greater analytical punch. You'll find a Pan Meter function incorporated with the Peak and RMS Meters (useful for determining channel balance); a Wave Scope (useful for showing magnified channel level views of the current waveforms around the cursor position – either individually, L+R or L-R); an FFT Spectrum Analyser for displaying a continuous frequency graph over a true 24-bit dynamic range at sample rates up to 96k; and a very useful Bit Meter for determining the resolution of the audio that is being monitored – ie. how many bits are actually being used. Any level of real-time processing such as plug-in insertion or level alteration will show up on the Bit Meter as bits becoming active, often moving well past the 24-bit mark. However, in practice, I found the Bit Meter uncovered more than just the 'measured resolution'. There were instances where well-known plug-ins (advertised as 32-bit processors) fell short in the headroom department, weighing in at only 16 bits. Work that one out?!

### Plug-ins, Montage & Backup

Version 4 now includes even more processing plug-ins than before. As mentioned previously, Apogee's UV22HR is now included, as are some high-end plug-ins that have been directly lifted from Steinberg's Mastering Edition suite of plugs. New real-time effects include: a five-band compressor, the Spectraliser (a second and third harmonic generator/enhancer), a Denoiser and Declicker (powerful restoration plug-ins), a high quality four-band equaliser with two fully-parametric mid bands, a NaturalVerb reverb, a Voice Attenuator for removing vocals from recorded music, and a 192k Resampler (for playing back files at differing sample rates in real-time up to 192k). Without going into the specifics of each individual plug-in, it is important to note that up until recently, some of these plug-ins were sold individually for hundreds of dollars. So, you're not only getting professional plug-in solutions straight out of the box, but your getting them for nothing!

The function that sets Wavelab apart from its competition is Audio Montage. Essentially, it's a multichannel (unlimited tracks) non-destructive editing workspace that includes CD-burning facilities. Version 4 has added some new features and made some minor tweaks to Audio Montage. Let's run through the enhancements.

Syncing to external hardware is now possible via Midi Time Code (MTC). Right-clicking speed menus have been added for enhanced functionality and convenience. CD transport controls have been improved on the CD page for greater auditioning possibilities. Mixed-Mode (data/audio) and CD Extra format CDs (audio/data), as well as 'Audio in Pauses' are now supported (subject to your CD-R drive's support), allowing you to burn multi-format CD-Rs, create hidden tracks and or insert pauses in any type of recorded material. Burning standard Red Book-compatible audio CDs has been greatly simplified using the Basic Audio CD format, rather than requiring the Montage functions – a

great option for speedy, out-the-door projects.

Professional track sheets can now be created in RTF (Rich Text Format) via the new 'Audio CD Report' function, which has replaced the 'Generate Cue Sheet' function. Additionally, Version 4 now includes a reasonably comprehensive Label Editor for designing and printing custom labels for your CD projects. This function imports your track details from the Montage or CD Project.

Version 4 now supports even more file formats than before. Digidesign users will be happy to know that Sound Designer II files (up to 24-bit) are now supported as are Ensoniq Paris (16-bit) and U-law (8-bit telephone encoding format) files. Additionally, Wavelab now has its own proprietary loss-less compressed audio file format called 'Original Sound Quality'. OSQ files provide a considerable saving on disk space when backing up audio files – you can expect to save around half the space of the original sound file. Decompression is extremely fast (CPU-dependent) and for the sceptics out there, decoded OSQ files can be easily checked against the original via Wavelab's Audio File Comparer.

Version 4 now includes a new 'Backup Plan' function for comprehensive Audio and Data backups. Multiple archiving destinations are supported, including CDs and hard drives. You can archive files either compressed (Zip/data, OSQ/audio) or uncompressed, and multi-volume CD archives are also supported – a fantastic option for backing up 24-bit audio files to CD.

### Crest of the Wave?

I have been using Wavelab 4 for several weeks now in a mastering capacity and it has been a pleasure to look at and work with. The enhanced menu design and customisable features have increased the software's speed and functionality considerably. The extended file format support has allowed me to easily import multiple file formats and even play them back at multiple sample rates with the use of the new real-time effects processors. The new audio analysers (especially the Bit Meter) have become invaluable tools. The backup and database options have provided greater flexibility for archiving projects, especially those beyond standard CD quality, and the stability of the software has been faultless.

Wavelab 4 caters for many applications from standard multitrack and stereo editing, sampled sound designing, multimedia authoring and mastering. Its Audio Montage function was a revelation in v3, and v4 continues to keep Wavelab a step ahead of its competition. Wavelab 3's professional feature set and sound quality was enough to win me over two years ago, and so it was with considerable pleasure that I realised my investment would continue to bear fruit into the foreseeable future.

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### Manufacturer Info

• Steinberg

Web: [www.steinberg.net](http://www.steinberg.net)

See our Contact Directory for local contact details

### Price Guide

• US\$599 (less for upgrades from v3.0 and v2.0);