



The Heart of Your Studio



New ideas. New Freedom. New Design.

Modern music creation is about having an idea and making it work for you. There are hundreds of new and powerful editing tools built in to Cubase SX.

Where do you begin?

To help you get started, we have prepared this document, outlining the what, when, how and why's of our new program, Cubase SX. So, let's go!

VST SYSTEM LINK

CUBASE SX is the first product within the Steinberg range to fully support our latest technology, VST System Link. Networking computers using Steinberg's Virtual Studio Technology (VST) software and Audio Stream Input Output (ASIO) hardware is now possible!

VST System Link enables the transfer of synchronization, transport, and audio as well as MIDI data between two or more workstations equipped with compatible software and hardware over standard digital audio cabling systems such as ADAT, TDIF, AES/EBU, S/PDIF etc. And because it uses the audio stream itself, synchronization is completely sample accurate, even across multiple workstation configurations!

THE PROJECT WINDOW

Cubase SX's main working area, The Project Window, previously known as the 'Arrange' page in earlier Cubase versions, is a view allowing real-time placement of audio, video and MIDI segments that also serves for almost all primary editing tasks, including automation as well as giving an overview of the entire project.

The speed at which you can move, nudge, fade in, fade out, change volume, or cross fade each part directly from the Project Window is by far one of the most powerful features currently found in this new Cubase SX.

The simple 'Drag-and-Drop' functionality means that objects can be quickly moved, not just within projects, but also between them as Cubase SX allows the user to have multiple projects open simultaneously.

All track-based information is displayed within the 'Inspector', including mix settings. From Cubase SX's Inspector users can now add insert-effects, adjust aux-sends, pan and volume and much more, without calling up the mixer.

All 'Event' based information (such as Part Name, Start Point, End Point, Length, Offset, Snap, Volume, Fade-info etc) is shown within the 'Infoline'. To assist with navigation and to ensure the process is as fast and simple as possible, Cubase SX includes several new tools:

- By holding down your left mouse button above the timeline and moving the mouse up or down, you zoom in/out vertically.
- By holding down the middle mouse button you can move the window content to show which tracks are currently not viewable on-screen.
- We have chosen the following 'user definable' Project Window Zoom Presets for your convenience: zoom tracks full, zoom tracks minimal, zoom 4, 8 and x tracks.
- Additionally, selectable timeline formats (for example: bars+beats, seconds, frames, samples and one additional time scale) can also be freely positioned to work as a vertical project divider.

The following tools from previous versions of Cubase also still appear:

- Controls for Grid resolution and Quantize settings are clearly placed at the top of the window and guarantee the performance you want.
- Sliders are available for zooming vertically and horizontally.
- The Marker track enables you to define unlimited cue-points as well as location ranges. Setting up a cycle out of a predefined 'Marker' range is as simple as one mouse-click.

In addition we provide a new tool bar in the top part of the Project Window. This tool bar allows you quick and easy access to the main and most widely used editing tools, shortcuts to editors and also a mini Transport Bar.

Project Settings

- Start time
- Length
- Frame rate
- Display format
- Display offset
- Sample Rate
- Bit depth of record format

Supported File formats / Import and Export File options

Audio Import:

16-bit, 24-bit and 32-bit floating-point audio files; 44.1 kHz, 48 kHz, 88.2 kHz, and 96 kHz sample rates: AIFF, AIFC, WAVE, Broadcast WAVE, MPG, MP2, MP3, REX, REX2, WMA, SD2 (on Mac), Audio CD grabbing function.

Audio Export:

AIFF, WAVE (system-installed ACM codecs can be used), Broadcast WAVE, MP3, RealAudioV5 (on PC), Windows Media Audio, SD2 (on Mac)

Video Formats: MOV, QT, AVI, MPG, MPEG

Project Import:

- Cubase Song
- Cubase Arrangements
- Cubase PART

Others:

- MIDI type1/2 export/import
- SoundFont 2 load/save/patchname – support for Soundfont compatible devices like Audigy, SB Live
- Patchname-Script support for Cubase5.x compatible Scripts
- VST/VSTi patches (fxp) and bank (fxb) support

Templates

Cubase SX provides Template files which make it easy to create new projects with certain predefined settings, customized and prepared for different project-needs (eg Live-recording, MIDI-Project, Audio-Project, etc.). As a rule, any parameter that is saved within a project file is also saved in a template file, so if you create a new project, you can use the template as the basis for the new project.

TOOLS

We provide the following SX Tools for your daily arranging tasks:

- Arrow Tool (3 Modes)
 - Sizing
 - Sizing applies Time Stretch (Time stretch Tool) and now also;
 - Sizing Moves content
- Range Tool (Now with both A and B selection)
- Split Tool



- Glue Tool
- Erase Tool
- Magnifier Tool
- Mute Tool
- Pencil Tool (2 Modes)
 - Draw
 - Line
- Scrub Tool (2 Modes)
 - Scrub
 - Play

TRACK CLASSES

For both Audio and MIDI tracks, Cubase SX features the following functions:

One of the first 'new optimisations' for the user within SX is that the **Group tracks** now function as audio-subgroups and are also represented within the Mixer.

Folder Tracks can hold unlimited sub-tracks (and from any track classification). A Folder Track can be unfolded to show its component sub-tracks or folded to hide them. This allows a simple and efficient 'visual' clean-up of the Project by combining several arrange elements that belong to each other (drum tracks or vocal takes for example). The Folder Track itself displays the contained parts and tracks as Folder parts or sub-tracks.

These Folder parts and sub-tracks are now editable (cut, copy, paste, move, size, MIDI-functions) and edits applied to them are reflected through the parts and tracks within your Folder track!

Marker tracks are ideal for cueing, locating and structuring your project. The user can store and name ranges (e.g. verse, chorus, etc.) or single points. Both are graphically displayed on the track and allow locating or cycling of ranges with a mouse click.

The new Video track within SX holds video files and allows the user to spot takes and frames fast and simply by displaying a zoomable thumbnail preview.

The Master Automation track holds all automation data for the Master Fader (except plug-in automation).

Cubase SX includes a **new Plug-In Automation track** that holds all plug-in automation data.

INSPECTOR

The SX Inspector displays the following additional information and play parameters from your selected track. Please note - the displayed parameters differ between Audio and MIDI track classes.

MIDI track information within the Inspector:

- MIDI Channel Fader
- Arm, Mute, Solo, Lock, Timebase of track
- Channel-Edit button
- Input & Output port, channel, Bank & Program selection, Patchnames
- Volume, pan, delay, transpose, velocity shift, compression, note-length
- 2x Randomize: Position, Pitch, Velocity, Length, any other midi controller
- 2x Range: Velocity Limit, Velocity Filter, Note Limit, Note Filter, any other midi controller
- SX comes with Inserts (4x) and Sends (4x) for MIDI-effects plug-ins!



Audio track information within the Inspector:

- Audio Channel Fader
- Channel-Edit button, FX, EQ, INS bypass buttons
- Insert-slots (8x)
- Sends-slots (8x)

And as in previous Cubase versions:

- Volume, pan, delay
- Mute, Solo, Lock, Time base of track
- Arm, Monitor input, Mute, Solo, Lock, Timebase of track, stereo/mono switch

TRANSPORT

Within Cubase SX we have the following new transport commands in addition to the standard transport bar you may have known from previous versions of Cubase and Nuendo:

- Go to End
- Play from selection start
- Play to selection start
- Play to next marker
- Play selection range

EDITORS

KEY EDITOR/ Piano-roll Editor

With standard functions such as: Draw, Move, Copy, Delete, Mute, Size, Transpose note-events, Velocity and Controllers; the Key Editor design has been greatly improved for your benefit within Cubase SX.

Cut and Glue notes: This new feature means it is now possible to split and join note-events within the Key Editor using the regular cut and glue tools. For example - aligning the note length of several events is easier than ever: simply make a 'cut' at the desired end-point with multiple notes selected.

Multi-Lane Controller Editing for simultaneous editing of various controller data sets at the same time. Not an entirely new feature to SX, but a fantastic enhancement: replacing and combining both the Controller Editor with one of the Key Editor features you may have known from Cubase VST 5.x. Multiple controller lanes allow you to edit various controllers simultaneously within the Key Editor. The number of lanes available is 'as many as you need' and configuring is a one-click operation. This makes controlling various sound parameters in conjunction with your musical context a breeze.

Another new and brilliant feature is the Mathematical Curve Function (such as parabola, sine, triangle, square) for drawing Controller data precisely, quickly and easily. Curves can be changed during/within phase frequency and amplitude and they simultaneously snap to the grid. An additional feature here is the ability to flip between Drum and Key view 'on the fly' without leaving the Editor.

Step Recording allows recording events off-line by inputting notes via MIDI-in at the start position and automatically stepping these to the next Grid point (e.g. 1/16th). This allows the easy creation of musical lines that are difficult or impossible to play.

LIST EDITOR

The List Editor allows ALL data (MIDI, Audio events, Automation, etc.) to be edited numerically. It also provides an overview of the whole project so that you can easily browse through all tracks of your project and view it in a list style. This allows very precise control when adjusting the 'fine detail' like sample-accurate positioning of multiple data types.



DRUM EDITOR

Along with its standard functions (Draw, Move, Copy, Delete, Mute, Size, Transpose note-events, Velocity and Controllers) Cubase SX's Drum Editor also features new Drum Map support for assigning sound names to notes. Each sound or note-pitch can now have its own settings for Quantize, Output and Channel. Converting between Drum Maps via different Input and Output Maps is clear and easy to do. Another new feature is the Default Output option - for fast re-assigning to a new port. Within SX you can now easily flip between the Drum and Key view 'on the fly' without leaving the Editor.

Multi Lane Controller Editing for simultaneous editing of various controller data sets at the same time. Multi Controller Lanes allow you to edit various controllers simultaneously within the Drum Editor. The number of Lanes available is unlimited and configuring is a one-click operation. This makes controlling various sound parameters simultaneously in your musical context a breeze.

Again, within the Drum Editor, our new Mathematical Curve Functions (as listed above in the Key Editor) are used for drawing Controller data precisely, quickly and easily. Curves can be changed during/in phase frequency and amplitude and they snap to the grid automatically.

Step Recording within the Drum Editor is much the same as within the Key Editor, allowing events to be recorded offline by inputting notes via MIDI in at the Start position, and automatically stepping to the next grid point.

LOGICAL EDITOR

Based on defined criteria and conditions, you can not only find certain MIDI events, but also manage the complex manipulation of these events within the Logical Editor. A new feature for our Logical Editor is the ability to execute logical operations on MIDI events such as 'and' as well as 'or'. Applications range from simple tasks like filtering MIDI events to more complex ones such as changing the scale (relative interval distance) of a piece of music from minor to arabian, or lowering the velocity of every fourth 1/16th note in the part/track.

SAMPLE EDITOR and Off-Line Process History

The all-new Sample Editor allows viewing and manipulating audio at the Audio Clip level, by cutting and pasting, removing or drawing audio data. This editing is fully "non-destructive", in the sense that you can undo changes or revert to the original versions at any point, using the Offline Process History.

The Info Line at the bottom of the window shows all relevant information about the edited Audio Clip.

The Thumbnail display provides an overview of the whole Clip. Regions allow marking important sections in the Audio Clip that can be dragged into the Project window from the Editor or the Pool, to create new Audio Events.

Scrubbing allows you to locate positions in the audio by playing forwards or backwards at any speed.

The user can also edit the audio clip at sample level by drawing with the Pencil tool, to manually edit out a spike or click, etc.

Though you can do most of your editing directly within Cubase SX's Project window, an integrated Sample Editor is included for destructive editing of mono and stereo files. Any audio clip can be permanently edited and changed with full backup, plus multi-level undo and redo.

DSP-based editing tools

A complete list of DSP-based editing tools is included such as Acoustic Stamp (reverb & ambience modelling), Envelope (amplitude modifying), Crossfades, Fade In/Out, Noise Gate, Normalize, Phase Reverse, Remove DC Offset, Reverse, Silence, Stereo Flip, FFT Spectral Analyzer, Noise Gate.

Pitch shifting and time stretching to an extremely high standard can be achieved with the acclaimed Prosoniq MPEX algorithm included in Cubase SX as standard.



PART EDITOR

Cubase SX's Audio Part Editor is made for viewing and editing all the individual Events hosted by an entire Audio Part. This is the same type of editing as in the Project window. It is also now possible to create a perfect phrase by putting together sections of different recording takes within the Audio Part Editor. This could include splitting with the Scissors tool, resizing Events with the Arrow tool, muting Events with the Mute tool or deleting with the Eraser tool. Additionally, Multiple Lanes make it easier to work with several Audio Events in one Part.

LOOP EDITOR

Completely new to Cubase SX is the Loop Editor. This editor allows for automatic song-tempo matching of audio material by utilizing a novel method of time stretching or time compression when applied to short audio-segments contained within a phrase or loop. These segments can be created automatically or by user-control after analysis of the audio-sample within the Sample Editor. Segments are identified by marker-generation at the audio-transients. Editing and arranging of these segments takes place in the Part Editor. You can then make tempo changes to your song in real-time (e.g. follow Tempo-Map) and your audio playback will follow.

- It is now possible to use odd meters and loops of unlimited length when mixing.
- A combination of loops with differing original tempi, or even with differing groove styles can be handled with ease within the same song.
- Match the groove of MIDI tracks to looped audio or vice versa.
- Quantize or Match Quantize the groove of looped audio (non-destructive and fully undoable)
- Re-arrange your grooves - exchange single samples inside your loop or export all single samples from one loop.

The Loop Editor is also very practical for non-loop-based material; eg- easy auto cutting and match quantizing of single words from vocals takes.

SCORE EDITOR

The Score Editor from Cubase Score 5.1 has been optimised and built into CUBASE SX with all features. Menu names and dialog text items are almost always the same as in Cubase Score 5.1, so it should not be too hard to find the features you are already familiar with. Probably the single most impressive new function of the Score Editor within Cubase SX is the fully unlimited multiple undo/ redo editing.

UNLIMITED UNDO/ REDO

- Edit history
- Offline process history

At the top of our wish list was unlimited Undo/ Redo and we are pleased to announce that Cubase SX gives you this feature from day one! Thanks to SX's powerful and unlimited Undo / Redo feature, it's no problem if a mistake is twenty edits back or one hundred. The Edit History window displays all changes made during the past hour, three hours or until you close the project, making it easy to target a potentially costly mistake. And rest easy as the original audio files remain untouched unless you choose otherwise. CUBASE SX goes even further as you can process any audio segment with a wide variety of powerful edit operations and plug-in effects with the integrated Sample Editor, or even from directly within the Project or List Editor windows. And as each segment has its own individual off-line process history which is stored within the Project, the edits you make today can be selectively removed, or even re-applied with new parameters within seconds, giving you total freedom of choice to change your mind tomorrow.

AUTOMATION

- Automation for all channel parameters
- Automation for all VST plug-in parameters (FX and VSi)
- Full automation of all master section elements



For automation, two different (and new!) automation modes are available:

- Touch fader – Automation writing begins by touching the fader and is stopped by releasing it.
- Autolatch - Again, start of the automation is determined by touching the fader whilst clicking on the 'stop' from the transport bar triggers the end of automation. This means that the last value of automation is continuously written until you hit Stop.

Again, the new SX feature - Mathematical curves (parabola, sine, triangle, square) for drawing automation data as precise and efficiently as possible appear within the Automation function. Curves can be changed in phase frequency and amplitude and spontaneously snap to the grid.

CUBASE SX lets you fully automate your mix, giving you the power to shape and define your creative ideas the way you always imagined. Levels for each channel, mutes, equalization, panning, sends, surround placement, and of course compatible VST plug-in effects can be automated by simply moving a fader or turning a knob, or easily draw the moves you want directly with the pencil tools. There are separate Write/Exclude modes for each mixer channel, and multiple automation parameters can simultaneously be displayed, or hidden with a simple mouse click. And when it comes to editing automation, CUBASE SX lets you work numerically within the List Editor, or graphically within the Project window, giving you the freedom and flexibility to choose the best set of tools for the job at hand and for you.

MIXER

Mixer Channels

An amazing amount of flexibility is yours now as any combination of mixer channels can be freely grouped or sent to one (or more) of up to 64 'sub group' channels.

Each of the channels within Cubase SX's VST mixer has 4-band EQ, and now 8 insert points for plug-in effects, plus 8 auxiliary sends, 16 virtual instruments' slots and a Master section with up to 6 separate global plug-in effects.

Mixing Control

To make mixing even easier CUBASE SX gives you the choice to use key commands, hardware remote control surfaces or a mouse for controlling the volume of selected mixer channels. You can now bounce your final mix to disk in real-time or use CUBASE SX's off-line mix-down mode, which allows for using more effects than your present computer might allow; and for final mastering, needs only a suite of tools such as Apogee's UV22HR Dither plug-in – which is included at no extra charge.

Audio Quality

Today Cubase SX uses state of the art precision 32-Bit floating-point algorithms throughout its signal path to ensure the highest available sound quality. Another (now standard) feature is support for up to 32-Bit 96kHz recording and playback.

Again, newly designed for Cubase SX! Three different views of the mixer are now available:

- Standard
- Small
- Extended

The standard view (already known from Cubase 5.1 and Nuendo) allows for an overview of the most important elements like the fader, panning mute, solo and routing in approximately the height of a standard computer monitor (resolution of 1024 x 768). An integrated edit button opens a channel strip allowing the user to access further functionalities like FX, EQ etc.

The small view will reduce all channels to fader, mute and solo only and thus allow for an overview of many channels at the same time.

The extended view adds a top zone to the standard size mixer changing its height to almost full screen (at 1024 x 768). In this upper zone the user can switch between views for EQ and aux-send or insert effects per channel or globally.

Mixtures of narrow and regular wide channels are also available as every channel can be defined in width individually. Height is switchable on a global level only.



The master section of the CUBASE SX Mixer features 6 insert slots and a new option for dithering using the Apogee UV 22 HR algorithm.

All needed functionalities for linking channels as well as saving / restoring channel information is available from within the mixer by simply right clicking on a channel.

Track classes of the mixer

Input channels: Audio / Group / Virtual Studio Instruments

- Stereo/mono
- Switchable Pan-law
- Surround Panner for dynamic output to different Surround-busses
- Volume fader with 15-bit resolution and 2 decimals precision
- Channel output: Group, Bus, Surround
- Channel input: VST or physical Input (allows mixing + metering of incoming audio signals!)
- 4-band fully parametric EQ (Band 1+4: switchable Shelf / Hpf /Lpf / bell, Band 2+3: bell)
- Global Library system for EQ settings available
- 8 Inline effects inserts for each audio channel
- 8 Aux Sends, routable to FX rack, Groups or available Bus outs
- 16 virtual instruments' slots
- Channels can be linked
- Channel settings: save/copy/paste
- EQ, Insert, Aux sections of Channel strip can now be bypassed fast and individually
- Adjustable response of meters (fast/slow)

Master:

Master effects buss allowing for up to 6 simultaneous chained multi-channel effects and optional dithering with the Apogee UV 22 HR algorithm.

MIDI:

In Cubase SX we now include MIDI effects plug-ins as standard. These allow various real time processes to effect your MIDI parts under real time control. To get you started we include 12 brand new MIDI effects plug-ins (see list below), and we provide a total of 4 inserts and 4 FX-Sends per track. These allow you to select any Steinberg MIDI plug-in (and all Cakewalk compatible plug-ins).

Steinberg Plug-ins included: Arpache 1, Chorder, Microtune, Quantize, Auto Panner, Control, MIDI compressor, Echo Processor, Notes 2 Volume, Track Controls, Track Para FX and Transformer.

ReWire channel:

Accepting audio data from other ReWire compatible applications.

SURROUND SOUND

CUBASE SX is now capable of up to six-channel surround sound with a configurable speaker set-up - allowing the user to adjust to his specific studio configuration.

Supported formats in the Master Setup are:

- Stereo
- Quadro
- LRCS
- Standard 3/2
- 5.1



EFFECTS PROCESSORS

CUBASE SX supports all of the existing Steinberg and Third party VST and DirectX plug-ins (more than 400 all together) for real time effect processing. An extremely complete suite of Steinberg VST effect processors is included.

Included with Cubase SX:

- Multitap Delay
- Classic Delay
- Dynamics
- DeEsser Powered by SPL
- Overdrive
- QuadraFuzz
- Chopper
- datube
- Flanger
- Phaser
- Rotary
- Chorus
- Metalizer
- Transformer
- Grungalizer
- Symphonic
- Reverb
- Reverb 32
- Vocoder
- Phatsync
- Bitcrusher
- Ring modulation
- SMPTE Generator
- 6 to 2 Mixer

VST INSTRUMENTS

There are 3 new VST Instruments included within Cubase SX:

- A1 – Analogue Synthesizer Unit developed by Waldorf
- B1 – Bass Emulation Unit
- D1 – Drum Sampler Unit

AUDIO PROCESSORS

- Crossfades, Envelope
- Fade In/Out
- Gain Change
- Noise Gate
- Normalize Phase Reverse
- Pitch-shift
- Remove DC Offset
- Reverse
- Silence
- Stereo Flip
- Time Stretch

MIDI FUNCTIONS (global)

- Quantize, Auto Quantize in record
- Quantize Length, Ends, Fixed Length

Undo / Freeze Quantize
Delete Doubles, Controllers, Notes
Transpose
Velocity, Fixed Velocity
Dissolve Part
Merge Record Parts

VIDEO FUNCTION

As working in sync with the picture is an essential demand for film scoring, Cubase SX does not only allow playback of video files (MOV, QT, AVI, MPG, MPEG) within a video window; it also provides the Composer with a thumbnail video track for fast and easy composing to the picture and placing musical events at takes and frames.

SYNCHRONISATION

CUBASE SX can synchronize to other devices utilizing any of the following time code formats

- MTC
- MMC
- ASIO Positioning Protocol (with certain hardware)
- And now also an SMPTE generator plug-in (CUBASE SX can be the master only in this scenario!)

In today's studios there are a lot of synchronization problems that need to be solved. From major issues such as locking up various machines in precise sync to each other, to the complexity of handling an all-digital studio without degrading audio quality with inferior word clock signals. On its own CUBASE SX can sync to any time code source that can be translated into MTC information - allowing the system to be precisely positioned and locked to incoming LTC or VITC time code. In addition the included SMPTE generator plug-in enables you to read out LTC through any of your audio card's hardware outputs and thus hook up devices capable of reading LTC. As well, CUBASE SX supports the ASIO positioning protocol allowing ASIO 2.0 audio cards that can directly read time code to lock its audio clock to the incoming time code, and then communicate with CUBASE SX, providing all the necessary synchronization information for a precise lock.

REWIRE 2.0 SUPPORT

ReWire is a technology for transferring audio data between software applications – in real time - the software equivalent of a multi-channel audio/MIDI cable:

- Audio-streaming of up to 64 channels between applications with Sample accurate synchronization
- MIDI-streaming between applications
- Common transport functionality

A typical application for ReWire would be a stand-alone software synthesizer with MIDI input and Audio output. The application would show up in CUBASE SX as a MIDI out port, ready to trigger. Audio outputs are connected via Rewire to the VST mixer, allowing VST-FX / EQ/ Dynamics to be applied in real time.

HARDWARE CONTROL SURFACES

For those who prefer to work with more conventional mixing surfaces, CUBASE SX is of course fully compatible with Steinberg's Houston allowing you to touch the virtual world of CUBASE SX with physical knobs, buttons and faders. Features such as transport control, scrub, fast forward, rewind, track muting, track arming, control over plug-in parameters and full moving-fader control over your mix are just a few of the possibilities. But also many 3rd Party remote controllers are supported. CUBASE SX currently supports devices made by JL Cooper, CM Automation, Radikal Technologies, Roland, Tascam, and Yamaha.



FEATURE OVERVIEW

SX Feature highlights:

- Tracks: Audio, Group Channels, Video, MIDI, Folder, Mix Automation, Marker and Tempo
- CD audio grabbing
- Support for Steinberg and Cakewalk MIDI plug-ins
- Surround Panning
- Surround mixing: Freely configurable speaker arrangement with up to six discreet channels
- Mix Automation Tracks for each audio track, group channel and for plug-ins
- Auto-fade and Autocross fades with user definable fade times for smooth transitions into, and out of, audio clips
- Audio Process History with the ability to modify, remove or replace former processes
- Video Track with thumbnail preview
- Video playback with QuickTime®, DirectShow or Video for Windows
- The pool to keep your media organized in a logical manner
- Unlimited undo/redo
- Templates
- List Editor view allows all data (Events, MIDI, Automation etc.) to be edited numerically

Features:

- Up to 200 or more Audio Channels of simultaneous playback*
- Up to 64 Group Channels with same access to audio effects and EQ as normal audio tracks
- Recording of multiple channels of audio simultaneously
- 16-Bit, 24-Bit and 32-Bit float audio files; 44.1 kHz, 48 kHz, 88.2 kHz, and 96 kHz sample rates
- Record of AIFF, WAVE and Broadcast WAVE files (SD2 for Mac)
- Import of AIFF, AIFC, WAVE, Broadcast WAVE, WMA, MP3, REX files (SD2 on Mac) / Import file frequencies of up to 96 kHz depending on the file format
- Export to MP3, RealAudio G2, AIFF, Broadcast Wave and WAVE (also Windows Media Audio and Real Audio V5 on PC, SD2 on Mac®)
- Export sampling frequencies of up to 96 kHz (Broadcast Wave, Wave, AIFF)
- 8 auxiliary internal effect busses
- 8 Inline effects inserts for each audio channel
- Master effects buss allowing for up to 8 simultaneous chained multi-channel effects
- Access to internal effect plug-ins or external effects patched via the audio hardware
- Real-time support for VST plug-ins (may also be applied offline)
- Real-time support for DirectX® plug-ins (may also be applied offline)
- Reverb, Echo/Delay, Compression/Dynamics, Chorus, Flanging, Modulated Filter Effects, Equalizers and Apogee UV-22 HR dithering algorithm included
- Truetape Technology for 'warm' recordings and analog tape-compression simulation
- Automated mixing of all parameters
- Viewing of multiple mixing parameters simultaneously
- Offline mix-down to a mono, stereo or multi-channel file
- Sample Editor
- Integrated Processes: Acoustic Stamp, Cross fades, Envelope, Fade In/Out, Gain Change, Noise Gate, Normalize, Phase Reverse, Pitch-shift, Remove DC Offset, Reverse, Silence, Stereo Flip, Time Stretch and Pitch-Shift using the Prosoniq MPEX-Algorithm
- Non-destructive, editable Fades and Cross fades
- Analysis: Statistics, FFT based spectral analyser
- Fast locate and sync lock up
- Scrubbing of individual tracks forwards and backwards
- Tempo-lock option is available on tracks to allow events to maintain their relative bar and beat position as the tempo changes
- Timeline Formats: Time code, Seconds, Samples, Bars and Beats
- Synchronization: Sample Clock Sync, MTC, MIDI Clock, LTC master via audio hardware
- Sample accurate sync with ASIO 2.0
- Loop recording and playback for all tracks



- Support of networking through standard networking protocols
- Markers can be accessed via the Marker Window, Marker Track, from the numerical keypad, or from a remote control
- Remote control via dedicated hardware controllers such as Steinberg Houston,
- JL Cooper MCS-3000, JL Cooper CS-10, Roland MCR-8, Yamaha 01V, Cm Automation, Motormix, Radikal SAC-2K and other units from Tascam, Roland and Yamaha
- MIDI Support including Key, Score, List, Logical and support for Virtual Studio Instruments
- Cubase 5.1 Song, Arrangement and PART File import, MIDI File import and export
- Mixdown to MP3, RealAudio G2, AIFF, and WAVE (also Windows Media Audio and Real Audio V5 on PC, SD2 on Mac®)
- Enhanced editing operations and tools (range or object based selection eg. Nudging or Scrub Tool)
- Various options to lock events in size, fade-length, position and others
- Any project named "autoplay*.npr will immediately start play back upon launch

* Depending on computer hardware

SYSTEM REQUIREMENTS

Computer Hardware PC

- Required System: Pentium III 500 MHz, 256 MB of free RAM
- Recommended System: Dual P III / Athlon, 1 GHz or faster, 512 MB RAM
- USB Port required

Operating System PC

- Windows 2000, Windows XP Home and Professional

Audio Hardware PC

- Supports ASIO 2 spec for high-end multi-channel audio cards
- Supports Windows® MME & DirectSound spec for standard sound cards

Computer Hardware Mac

- Required System: PowerMac G3 350 MHz, 256 MB of free RAM
- Recommended System: PowerMac G4, 512 MB RAM
- USB-port required

Operating System Mac

- Mac OS X

Audio Hardware Mac

- Supports ASIO 2 spec for high-end multi-channel audio cards
- Supports Mac OS X compatible audio devices