

Cubase SL3

New Product Guide
September 2004



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Product Name “Cubase SL3” (please note correct spelling)

Tagline “Music Creation & Production System”

Positioning Statement (For internal use only) *“Cubase SL3 marks a quantum leap for music production software by adding more creative freedom to one of the world’s most popular music sequencers. Cubase SL3 combines the most advanced, creative features with unrivalled precision and pristine audio quality at an exceptional price making it the best value of any integrated music production system available today.”*

Product Summary Cubase SL3 offers more than 50 new features including powerful Audio Warp realtime time stretching, an intuitive Play Order Track, user-definable workspaces and many more. [25]

Cubase SL3 takes music production to a new level by adding more than 50 new features including powerful Audio Warp Realtime Timestretching, an intuitive Play Order Track, new user-definable workspaces and many new editing functions. Cubase SL3 offers uncompromised audio quality and full-featured MIDI recording/editing at an exceptionally low price. [50]

Cubase SL3 takes music production to a new level by adding more than 50 new features including powerful Audio Warp Realtime Timestretching, an intuitive Play Order Track, new user-definable workspaces, an improved and expanded track inspector plus many new editing functions.

For the first time, a native music production system combines full-featured audio and MIDI recording and editing, virtual instruments and powerful audio mixing with the added flexibility of loop- and pattern-based arranging and mixing. In addition, Cubase SL3 offers the same uncompromised audio quality and full-featured MIDI recording and editing known from Cubase SX at an exceptionally low price. [100]

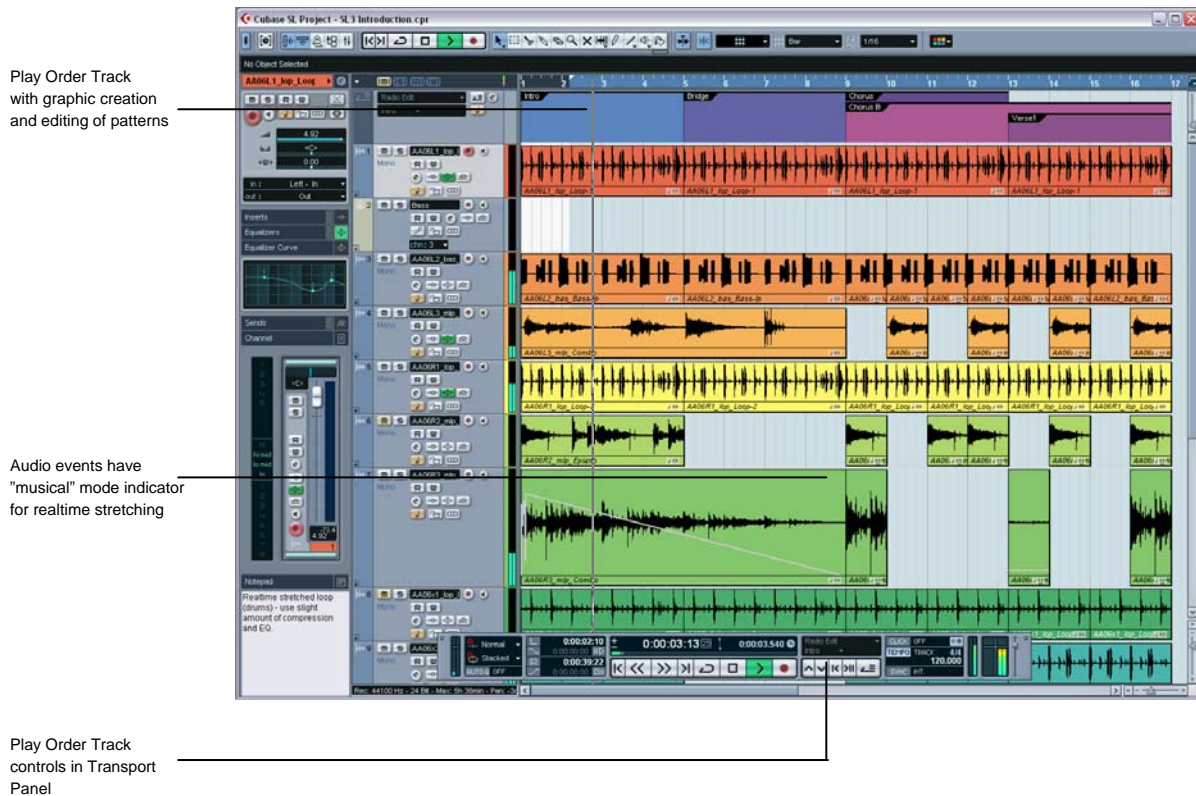
Key Selling Points (For internal use only)

- **Cubase SL3 offers more creative power than ever before with the addition of realtime audio stretching and pattern-style arranging.**
- **Cubase SL3 offers the same quality audio and MIDI engine as Cubase SX3 – at an exceptionally low price.**
- **Cubase SL3 represents the most powerful music creation & production system in its price range.**

Top-10 new features of Cubase SL3

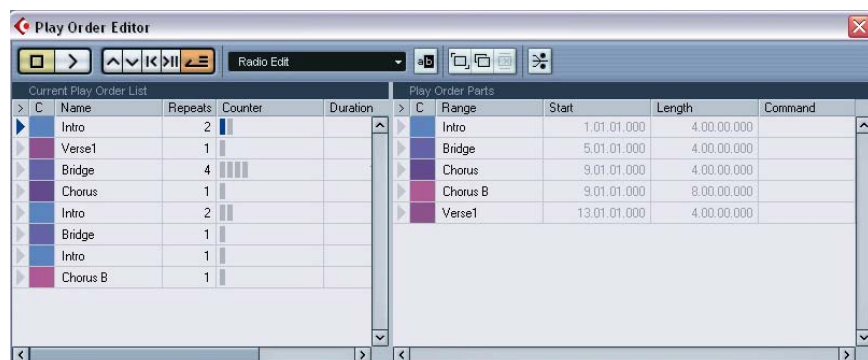
- **Audio Warp:** Realtime Time Stretching and Pitch Shifting offer extensive new audio editing and processing capabilities, including ACID® File support: loops automatically adopt a project's tempo; audio files can follow tempo changes in realtime.
- Intuitive **Play Order Track** for pattern-based arranging adds a new level of creative music editing. Divide your song into sections, and then re-arrange it on the fly. Compare alternative versions of your song and then convert them back into a linear form for mixdown and mastering.
- User-definable **Workspaces** (window layouts) help organizing your desktop. Create and save a separate workspace for each step of the production process. Switch Workspaces on the fly, as if working on multiple computers or monitors.
- **Extended Freeze** function for virtual instruments and audio tracks with added flexibility and improved performance. Freeze virtual instruments with or without insert effects. Then automatically unload the instrument to free up RAM. Freeze audio tracks with insert effects to free up even more CPU performance.
- New part-based **Volume Envelopes** for direct control of dynamics. Fix level problems on the fly without wasting automation tracks. Then move events with their volume envelopes.
- User-definable **Color Coding** for tracks and VST mixer channels provides more clarity and better orientation – especially in complex projects.
- SL3's **Extended Track Inspector** now offers direct access to a VST Instrument's audio channel strip directly from the MIDI track inspector. In fact, it puts both the MIDI and audio channel's parameters into one single column making it more accessible and easier to use.
- When a song is transferred between systems, all plug-in and virtual instrument links stay intact even when some of them are missing on another system. A so-called **Dummy Plug-in** replaces missing plug-ins until the project is opened on the original system and the plug-ins are back in place.
- Ever lost a great idea because you forgot to hit "Record"? With **Audio Pre Record** this will never happen again! Simply set up the amount of time for pre-recording (up to 10 minutes) and whatever you play within that window will be recorded into any record-enabled track – before you actually hit record.
- A redesigned and overall **improved Hitpoint Detection Algorithm** now offers more accurate results and easier handling. Choose between presets for different types of audio material or apply Q-points to Hitpoints for more accurate quantization and warping.

Product Facts



Cubase SL3 project window

Most of the new features in Cubase SL3 are seamlessly integrated into the familiar user interface. Most of these new options can be hidden from the transport or tool menu bar if not used.

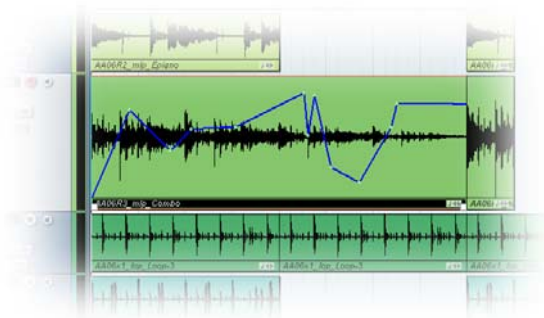


The **Play Order Editor** shows the available Play Order Parts on the right and the current Play Order List on the left side. One click on the "Flatten Play Order" button recalculates the project and converts the Play Order back into a linear timeline.

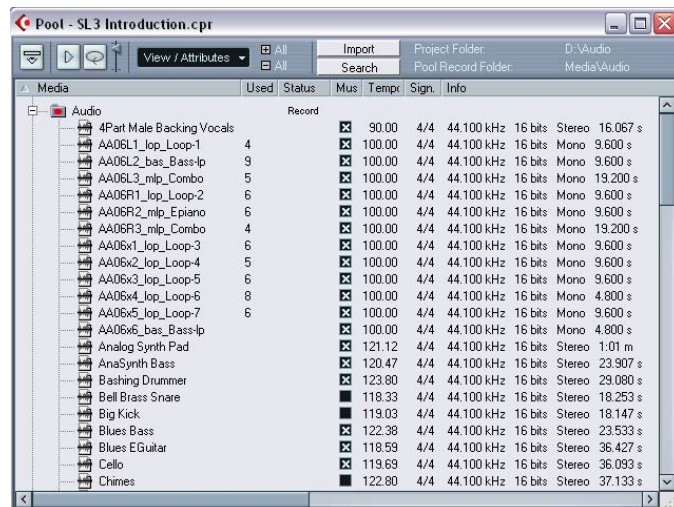
In addition to the Editor Window, the Play Order can also be edited from the Transport Panel, the Track Inspector and the Tool Bar



With the new and **expanded Track Inspector**, working with Virtual Instruments is even more convenient. If a MIDI track is routed to a VSTi, the VSTi's audio channel can be displayed in the MIDI tracks inspector. In fact, all MIDI and audio Inspector elements can be selected at need. For multi-output instruments, any output channel can be displayed.



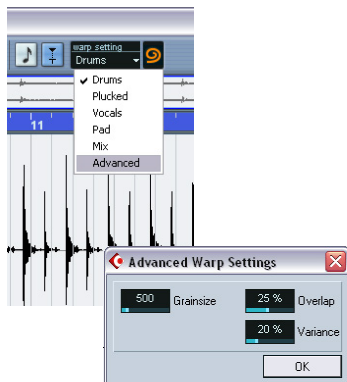
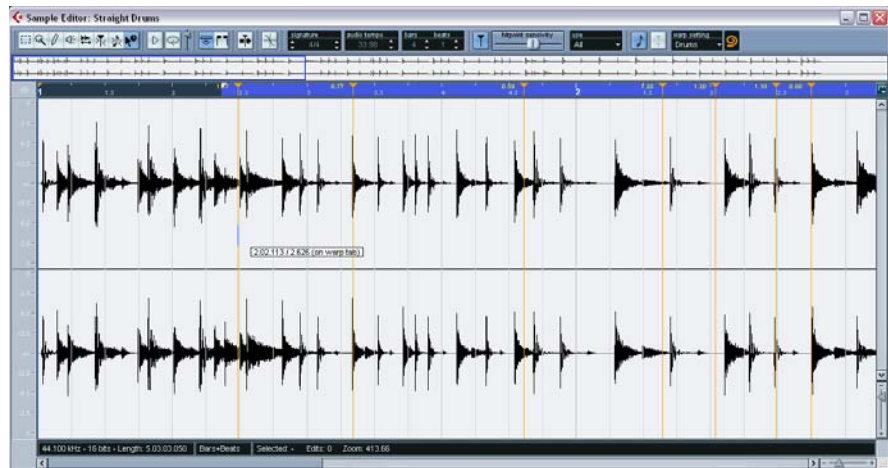
New **Volume Envelopes** can be used to apply part-based dynamic automation.



The **Pool Window** now has a tempo column as well as a selector to set each audio clip to musical mode. Clips set to "musical" will follow the song's tempo and tempo changes, whereas "non-musical" clips will always play in their original tempo.

The new realtime **Audio Warp** tools allow for extremely deep and accurate tempo matching and tempo editing. If an audio file contains tempo information (such as ACID® files), these can be directly imported into a project. ACID® files automatically pick up the song's tempo.

If the tempo/time signature of an audio clip is known but not included in the file, it can be typed in manually in the pool or audio editor. For audio clips with unknown tempo or time signature, a tempo definition tool can be used to define the clip's tempo.



Using the **Time Warp Tool**, the global tempo map can be matched to a free-form audio file. On the other hand, a free form audio file can be manually synced to a given tempo map, using the "**Warp Samples**" tool.

To adjust the **realtime stretching algorithm**, a number of presets can be used – or a custom setting created in the "Advanced" menu.

Finally there are a number of new **advanced audio processing** commands to create groove quantize templates, to quantize audio, or to freeze time stretch and transpose using the high-quality offline time-stretch algorithms.

Key Features & Benefits (Product Demo Favorites)

| Feature | What it does | Benefit |
|---|--|--|
| Realtime Audio Warp | A new realtime Timestretching algorithm has been implemented to offer realtime tempo and pitch editing. | Musical audio can now automatically follow a songs tempo and tempo changes. Individual parts can be transposed or tuned. ACID® files can be imported directly into a project and instantly take on the song's tempo. Complex tempo matching and audio quantizing tasks can now be done on the fly – in realtime with instant audio feedback. |
| New Play Order Track | Adds a new track to define a song's formal structure and divide it into patterns. Patterns can be arranged in one or more play order. A new play order can then be "flattened" into a new linear timeline. | The user is no longer tied into the linear structure of the timeline. Any existing arrangement can be divided into sections or patterns. This allows for vastly improved flexibility when experimenting with different song structures, arrangements or remixes. Instead of being tied into either linear or loop-based arranging, users can now work in both worlds at the same time. |
| Workspaces | Takes snapshots of a complete window setup and stores the entire desktop into a workspace. Key commands can then be used to switch between workspaces | Organizing window layouts for single or multiple screens is a lot more powerful and easier to use. A major workflow improvement for every Cubase user. |
| Extended Freeze | VST instrument freeze now has more options for freezing with or without insert effects. Audio channels now have a freeze button, too. In addition, overall performance of the freeze process has been improved | Freeze is now much more powerful. And more efficient. Saves more CPU, works faster, and offers more flexibility, especially when working with many plugins and instruments. |
| Dummy Plugin | Replaces missing plugins when moving a project to a different system. | Until now, it was difficult to move projects from one system to another, especially when plugins or VST instruments were missing. In SL3, a dummy plugin replaces missing plugins. This way, the project can still be opened and edited without losing the connections to the original plugin, when that project is sent back to the original system later. |
| Volume Envelopes | Part-based volume automation, similar to original Cubase VST "Dynamic Events" | Here's an additional way of controlling volume for a part. The pen tool can be used to draw volume curves on parts which will be locked to the part and move with the part. Great for fixing level problems right inside the part without the need of using track automation. |
| Color Coding for Tracks | Tracks in the project window can now be color-coded, same color is applied to respective mixer channels | Provides more clarity and better orientation – especially when working on complex projects with many tracks and mixer channels. When no colors are applied, the track color is copied to all parts within the track. However, if parts have been colorized before, these colors are retained. |
| Audio Pre-Record of up to 10 minutes | Records audio from the input of record-enabled tracks even before recording started | Never again, a great idea will be lost when audio pre-record is active. Audio recorded prior to record start can be revealed by enlarging the part to the left. A great feature, both for recording and overdubbing. |
| Improved Hitpoint Detection | Hitpoint algorithm and has been redesigned. | Hitpoint detection is now faster and more reliable. There are presets for different types of audio material, as well as an "Advanced" mode for customization. In addition, Hitpoints can now have Q-points for accurate quantization of audio with soft attack slopes. |

Cubase SL3/SX3 – Direct Comparison

Cubase SX3 and Cubase SL3 share most of their features and projects created on the one can easily be opened in the other without complicated modifications. Here are the most obvious differences between SL and SX:

| Feature | Cubase SL | Cubase SX |
|----------------|-----------------|---|
| Mixer | Small Mixer | Full Mixer |
| Audio Engine | Mono/Stereo | Mono/Stereo/Surround (up to 6 channels) |
| Plug-In Set | Limited | Full |
| Instrument Set | Limited | Full |
| Score | Limited Editing | Full Editing & Printing |

With the transition from version 2 to version 3, the differences between Cubase SL and Cubase SX become even more obvious. All of the above features remain for both programs. However, while SL3 has many of the fantastic new tools for arranging and producing music, it lacks most of the new hardware integration features of SX3, which makes this area a typically distinctive SX feature:

| Feature | Cubase SL3 | Cubase SX3 |
|--------------------|------------|------------|
| Audio Warp | Yes | Yes |
| Play Order Track | Yes | Yes |
| Inplace Editing | No | Yes |
| Extended Freeze | Yes | Yes |
| Color Coding | Yes | Yes |
| External FX | No | Yes |
| Device Maps | No | Yes |
| Studio Connections | No | Yes |

In terms of positioning Cubase SL3 and SX3, these are the significant characteristics of both programs:

- **Cubase SL3** is the perfect application for any budget-cautious musician looking for the fastest and most powerful tools for writing, arranging and producing music. It offers nearly the same powerful editing tools as Cubase SX3 and has no limitations in terms of audio quality, track count or compatibility.
- **Cubase SX3** sets itself apart with the addition of full multi-channel surround support across the entire signal path, as well as powerful hardware integration and editing tools. Therefore, it's the perfect choice for any semi-professional or professional musician looking for a top-of-the-line music production system.

Cubase SL3: Complete List of New Features

Mixing

Extended Freeze for VST instruments offers more options for freezing VSTi's and VSTi channels

Freeze for Audio Channels to reduce CPU load by audio insert plugins

Dummy Plugin replaces missing plugins when transferring projects to another system; thereby preserving the original plugin when moving back to the original system

Play Order Track for intuitive arranging and re-arranging of projects

Volume envelope for parts offers automation of volume that moves with the part

Files and Formats (Import and Export)

Import / export markers with Standard MIDI File

Recording and playback

Adjustable audio pre-record up to 10 minutes serves as a virtual audio sketch pad; audio clips can be expanded at the event start to reveal pre-recorded data

Improved scrubbing

New project start time options: keeps events absolute or relative to project start time

Post-Record cleanup after MIDI recording (resets pitch bend, sustain and other controllers)

Editing

Audio Warp realtime algorithm supports realtime time stretching and pitch shifting on individual or all clips

Time-Warp content tool allows for manual audio warping of individual clips

Hitpoint/loop rhythm info improvements

Improved Hitpoint Detection

Relative snapping of objects: parts keep their relative start position when moved by snap values

Audio feedback for velocity changes in controller lanes

Key commands to recall logical editor presets

Key commands to recall controller lane setups

MIDI controller input for data in Info-Line

Moving sync-point shows timecode indicator

Select tool automatically changes to pencil tool when moving mouse pointer to a velocity MIDI controller lane.

Project/General

Color coding for all tracks and mixer channels, including a new color tool, expanded color palette, view/hidden button and more

Alternative audio waveform visualization improves visibility of dynamics/loudness at small track heights

Performance Optimization (general and processor-specific)

Apple G5 and Intel P4 (Prescott) Optimization

Workspaces for managing window sets or entire desktops

Advanced metronome settings, including/adjustable pitch/volume for metronome click and alternative click samples

Alternative PPQ (bars+beats) linear view in project window

Optional position display for selection tool

Expand/collapse Inspector sections by clicking on entire title bar

Content indicator for Inspector Notepad

Plug-ins

Dummy plugin for freeze (replaces missing plugins when projects are transferred to other systems)

MIDI & Music

Quantizing MIDI can move associated controller events

MTC Loop sends continuous MTC timecode from seq. timecode when sequencer loops, jumps, locates, etc. (user preference)

New Synchronization Setup Dialog organizes all related parameters in a new and more intuitive way

Various

New command "set cursor to selection end"

Marker window now offers sortable columns

Grid Match color option for MIDI events

Option to open plug-in GUI directly from the plug-in information window

Maximize button for video window expands window to full screen

Key commands for the inspector sections expand or collapse respective sections