Exclusive *NUENDO* 3.2 Features

With Steinberg´s Media Production System having a dedicated focus on post production and surround the Nuendo feature set adds a list of functionalities to the feature set it has in common with Cubase 4.

This following list of attributes serves those creating audio to picture or working with extensive surround projects and is exclusive to Nuendo.

Functionalities for "audio to picture" work

Alongside the usual workstation capabilities found in musical environments today, those dealing with "audio to picture" often have additional demands. The following functionalities are exclusively available in Nuendo to support those working for film, television or multimedia:

- Display **Film Formats** (feet and frames for 16mm and 35 mm film) in timeline and counters.

- **Edit Mode** for syncing events & fades to the picture. The picture always follows while moving/trimming audio events or their fades.

- The command **Insert into Project at timecode position** which is available in the Pool enables the user to quickly transfer events from the pool into the project at specific time code positions.

- **The Track Sheet** provides a textual "flow chart" representation of the project. It lists all audio tracks and their contents and can easily be printed out.

- The ability of Nuendo to act as a **Sony 9-Pin Master** makes it possible to control 9-Pin compatible devices such as analogue or digital video decks, multi track recorders and other 9-Pin compatible applications. These devices then become a timecode master for Nuendo but their transport functionalities are comfortably controlled from within Nuendo.

- Additional **Machine Control** options are available within Nuendo in order to allow for optimized adoption to external machines which are controlled via 9-Pin or MMC.

  - Machine follows Mouse Edits
  - Send Shuttle command instead of FF/REV
  - Send Still / Pause instead of STOP
  - Activate Machine Controlled Cycle
  - 9-Pin - Displays follow locating Device

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The following list of features is only available in Nuendo:

- **Warp to Picture**: When working with the Warp Samples tool or the Warp Time tool, the picture also follows with Edit mode enabled.

- In order to receive edited video projects from Pinnacle Liquid applications, **X-Send** functionality has been made available in Nuendo, so that Liquid application recognize Nuendo workstations inside a network or alternatively, Nuendo can import X-Send files from a server.

- A comfortable **Renaming Dialog** is available in Nuendo allowing for quick and easy Renaming of multiple selected Events, Parts, Tracks, Clips or Regions. Standard Text elements like date, number, previous name but also user attributes can be filled into the new name.

- Commands to execute **fades of 1 ms** at start or end of event are available in order to allow for theses standard fades as quick as possible.

- The **Broadcast Wave** properties in Nuendo are being **saved with the project**. This makes project specific settings of these meta data sets possible.

- **User Definable Attributes** are available for clips in the pool. Attribute types "Text", "Number" and "Check Mark" can be setup and used for categorizing clips. The ability to setup search filters including theses attributes help for fast media finding results.

- An option is available to display **frame numbers in video frames.**

- An option is available to automatically **adapt** the **project frame rate** to the frame rate of an imported video file.

- The ability to alter the **video playback speed** of the Nuendo video playback engines by +/- 0.1% allows for adjusting audio/video length offsets resulting from e.g. a Telecine process.

- **Pull up / Pull down** is provided in Nuendo to handle sped up or slowed down audio speeds introduced by film transfers or NTSC to PAL conversion.

- The **DirectX Video Player** in Nuendo supports multiple video tracks, cuts/trims/ duplicates and multiple video files on a video track with varying format and resolution.

- Support for direct import of files having the extension ***.m2v** or ***.mpv2** (mpeg2) as well as ***.vob** (DVD ripped mpeg 2).

- Support for **HDTV frame rates** in the project setup.

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The following list of features is only available in Nuendo:

- The **ADR Studio** dialog replacement software from **Gallery** is supported by Nuendo and can be added in the Device Menu where appropriate MIDI input and output ports for operation with ADR Studio can be assigned.
  Typically, ADR Studio is running on a separate computer controlling Nuendo in terms of record, track arming and event naming via a standard MIDI connection.

Surround functionalities

In addition to enabling user to set up projects in mono and stereo as well as any standard surround formats up to 5.1, Nuendo allows for multi channel environments all the way up to 10.2. This means that every audio input, audio track, effect return, group and audio output can be six, seven, eight, nine or even twelve channels wide. For those wanting to encode their project in real-time to LCRS a Matrix Encoder/Decoder plug-ins is provided in addition to the separately available Dolby Digital and DTS Encoders.

- Additional Surround formats (**6.0 / 6.1 / 7.0 / 7.1 / 8.0 / 8.1 / 10.2**)

- **Matrix Encoder** and M**atrix Decoder** plug-in allowing for real-time encoding/decoding to LCRS.

- **Mix 8 to 2** plug-in for down-mixing up to 8 channels back to stereo or mono.

- **MixerDelay** plug-in allowing for distance compensation and rerouting within multi-channel tracks.

- Allowance for **Optional Panner** plug-ins as an alternative to the provided Nuendo surround panner.

- The **MixConvert** plug-in allows for quick and easy conversion between surround formats.

- **Output Channels** have other output channels (only those on the right side of them) available as a **destination** in all send slots.

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Exclusive *NUENDO* 3.2 Features

The following list of features is only available in Nuendo:

Network Collaboration

The **Network Collaboration** capabilities of Nuendo 3 allow true networking and team-working on projects. It allows users to connect multiple Nuendo workstation computers via standard LAN network cards. An entire project or just selected tracks can be opened on multiple computers for other members of the network to access and edit. Complete management of access rights and user groups makes it easy to collaborate on large-scale projects.

- The **User Manager** is the place to view all users in the network and define what other Nuendo users are allowed to do with your project. Are they able to read just some or all tracks? And even more important: Are they allowed to edit them as well? This decision is naturally made by the owner of a project.

- Network **Permission Presets** are real time savers. Once permissions are defined, they can be stored as presets and be recalled or edited for other projects.

- **Committing** changes is the most important feature of the network collaboration feature set. Edits made to you tracks or the tracks of others are transferred to the other systems connected.

- **Loading Changes** will update one or more tracks of a project so the work of other team members is integrated.

- **Automatically Apply Changes** applies immediate updates as soon as they are available in the network.

- The **Shared Projects List** provides an overview on all projects that have been opened for network access by their owners. The viewer's personal access rights are visible next to the projects.

- **Locking Tracks** makes it possible to get exclusive access to a certain track in case multiple users have editing rights. A track stays locked for the user who placed the lock until he himself or the owner of the corresponding project removes the lock.

- A **Chat Window** is available for direct textual communication between all Nuendo users participating in a collaboration project.

- The **Online Merge** functionality allows parts of projects to be merged into projects and vice versa.

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Exclusive *NUENDO* 3.2 Features

The following list of features is only available in Nuendo:

Project formats

Being able to exchange projects with other workstations is a mandatory requirement for any modern media production software. In addition to the wide range of file formats supported by Nuendo and the inclusion of OMF for exchanging projects, the following exchange formats are available in Nuendo to swap files with devices such as Tascam or AKAI dubbers, high end digital workstations from Fairlight, SADie and Tascam, as well as importing edit decision lists from Adobe Premiere.

- **AAF** support
- **AES-31 s**upport
- **OpenTL 3.0** support
- **Premiere Generic EDL** support

Harware Support

- Support for WK Audio **ID Hardware Controller** is granted by Nuendo making the combination of ID and Nuendo a perfect team especially with ID featuring dedicated hardware elements to control the functionalities of the Nuendo Control Room section.

- Nuendo is capable of interfacing with **Euphonix MC** and **System-5 MC** allowing for the ultimate workflow experience while recording, editing or mixing.

- Nuendo supports the **TimeBase Synchronizer** which is a unit serving four purposes at the same time:

    - Clock Generation
    - SMPTE Interfacing
    - 9-Pin control including Nuendo 9-Pin slave mode
    - Video Inserting

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Exclusive *NUENDO* 3.2 Features

The following list of features is only available in Nuendo:

Other functionalities

An array of other functionality is included in Nuendo to provide features that have been requested by high profile studio users:

- Record Sampling Frequency up to **192 kHz** for the ultimate sound experience.

- A **fourth Mixer Instance** is available providing optimal overview on any kind of track.

- **Advanced Cross Fade Editor** with even more professional tools to fine tune cross fades.

- Audio process **Acoustic Stamp** which processes any desirable impulse response allowing for offline convolution effects.

- **Batch Processing**: The offline process history can be saved and recalled as a batch process.

- **Menu Entries** can be disabled in order to hide unwanted functionality.

- **Key commands** can be disabled in order to suppress unwanted functionality.

- **Alternative Key Command Sets** can be configured and toggled with a single key stroke.

- **Denoiser** and **Declicker** plug-in for audio restoration.

- **MultiScope** plug-in including an oscilloscope, FFT spectrum analysis as well as phase metering and a jelly-fish surround sound view.

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