

**New Features in Nuendo 4.3**



# NUENDO<sub>4</sub>

Advanced Audio and Post Production System



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## **Introduction**

# Welcome!

Welcome to Nuendo 4.3! This version adds support for the SyncStation together with new features for every Nuendo user.

This document lists and describes the features that have been added to or modified in the program since version 4.1.

## About the program versions

The documentation covers two different operating systems or “platforms”; Windows and Mac OS X.

Some features and settings are specific to one of the platforms. This is clearly stated in the applicable cases. In other words:

⇒ If nothing else is said, all descriptions and procedures in the documentation are valid for both Windows and Mac OS X.

## Key command conventions

Many of the default key commands in Nuendo use modifier keys, some of which are different depending on the operating system. For example, the default key command for Undo is [Ctrl]-[Z] under Windows and [Command]-[Z] under Mac OS X.

When key commands with modifier keys are described in this manual, they are shown with the Windows modifier key first, in the following way:

[Win modifier key]/[Mac modifier key]-[key]

For example, [Ctrl]/[Command]-[Z] means “press [Ctrl] under Windows or [Command] under Mac OS X, then press [Z]”.

Similarly, [Alt]/[Option]-[X] means “press [Alt] under Windows or [Option] under Mac OS X, then press [X]”.

⇒ Please note that this manual might refer to right-clicking, e.g. to open context menus, etc. If you are using a Mac with a single-button mouse, hold down [Ctrl] and click.

**Working with the new features**


## VST Sound

With version 4.2, Steinberg introduced VST Sound, a new version of the SoundFrame media management system that is directly integrated into VST3. VST Sound allows direct integration into the MediaBay to third party manufacturers of plug-ins and instruments, and encompasses all formats and file types previously supported by SoundFrame such as audio, loops, VSTi presets, video, MIDI files and track presets. VST Sound has now replaced SoundFrame, which was part of previous versions of Steinberg applications.

## Plug and Play support for ASIO devices

The Steinberg MR816 hardware series supports Plug and Play in Nuendo. These devices can be plugged in and switched on while the application is running. Nuendo will automatically use the driver of the MR816 series and will re-map the VST connections accordingly.

- Please note that Steinberg cannot guarantee that this will work with other hardware. If you are unsure of whether your device supports plug and play, please consult its documentation.

 If a device that does not support Plug and Play is connected/disconnected when the computer is running, it might get damaged.

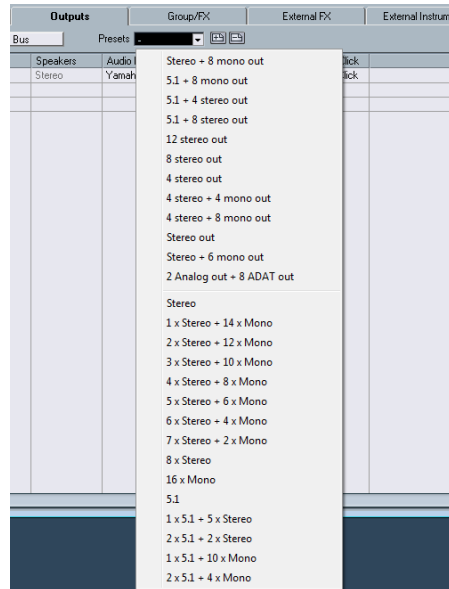
## Automatically generated VST Connection presets

In the VST Connections window (opened from the Devices menu), on the Inputs and Outputs tabs, you will find a Presets menu. A number of standard bus configurations are provided by default, and you can also save your own customized setups as presets.

In this version of Nuendo, a new type of preset has been added to complement the standard presets as known from the previous program version: On each startup, Nuendo will analyze the physical inputs and outputs provided by your audio hardware, and will automatically create presets tailored to your specific hardware configuration.

These hardware-dependent presets can have the following configurations:

- one stereo bus
- various combinations of stereo and mono busses
- a number of mono busses
- one 5.1 bus (if you have 6 or more inputs)
- various combinations of 5.1 and stereo busses (if you have 6 or more inputs)
- various combinations of 5.1 and mono busses (if you have 6 or more inputs)



The Presets menu on the Outputs tab of the VST Connections window, with the standard presets (top) and the automatically generated presets (bottom).

The automatically generated presets make it easy to install and use an audio hardware device very quickly, as it is no longer necessary to manually specify the bus-port assignments for the current device in the VST Connections window every time before you can start working. This is very handy, especially if you have a number of different devices you want to use or if you are working in different studios.



## Monitoring improvements

Regarding ASIO Direct Monitoring, some improvements have been made for this version of Nuendo.

Depending on the audio hardware, you can now control the monitoring level and panning from the mixer (including the Control Room section) by adjusting the volume faders, the input gain controls and the Control Room's studio send levels.

When using Steinberg hardware (MR816 series) in combination with ASIO Direct Monitoring, monitoring will be virtually latency-free.

## Mac OS X improvements

### Retrieving channel names

For some audio cards, it is now possible to automatically retrieve the "ASIO" channel names for the ports of your audio hardware:

1. Open the Device Setup dialog via the Devices menu.
2. On the VST Audio System page, select your audio card on the "ASIO driver" pop up menu.
3. In the Devices list to the left, select your audio card. The available settings are displayed.
4. In the settings section to the right, click the Control Panel button.  
This opens the control panel for your audio hardware.
5. Activate the "Use CoreAudio Channel Names" option.
6. When you now open the VST Connections window to set up the busses in your system, you will find that the port names in the Device Port column correspond to the names that are used by the CoreAudio driver.

⇒ If you want to use the project later on with an earlier version of Nuendo, you will have to re-assign the port connections in the VST Connections window.

## Port selection and activation

On the settings page for your audio card (opened via the Devices menu, see above), you can now specify which input and which output port should be active. This allows you e.g. to use the Microphone input instead of the Line input or even to deactivate the audio card input or output completely, if required.

⇒ This function is only available for Built-In Audio, standard USB audio devices and a certain number of other audio cards (e.g. Pinnacle CineWave).

## Making settings for the hardware

When you click the "Open Config App" button on the settings page for your audio device in the Device Setup dialog, the Control Panel for your audio device will be opened (if applicable). Here, you can make various settings relating to your audio hardware. The available settings depend on the installed hardware, so please refer to the documentation that came with the audio hardware for information.

## Remote Devices

On the Device Setup dialog, on the page for your remote device, some (or all) of the following new functions may be available (depending on your remote device):

Option	Description
Reset	This allows you to revert to the factory default settings for the remote device.
Bank	If your remote device contains several banks, you can select the bank you want to use on this pop-up menu. The bank you select here will be the one used by default when Nuendo is launched.
Smart Switch Delay	Some of the Nuendo functions (e.g. Solo and Mute) support the so called "smart switch" behavior: In addition to regular activation/deactivation of a function by clicking a button, you can also activate the function for as long as the button is pressed. Upon releasing the mouse button, the function is deactivated. This pop-up menu allows you to specify how long a button must be pressed before it goes into "smart switch" mode. When "Off" is selected, the "smart switch" function is deactivated in Nuendo.

## Key Commands for MediaBay options

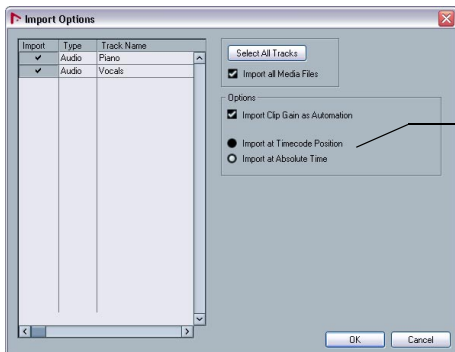
Several commands relating to the MediaBay can now be performed using keyboard shortcuts. These are set up in the Key Commands dialog (opened via the File menu).

New key commands are available for the following actions: you can step through presets, open the Presets browser, and use the arrow keys on your keyboard to navigate in the MediaBay windows. Furthermore, you can reset the search criteria or revert to the MediaBay as it was when you launched the program.

⇒ Note that this makes it possible to remote control several of the MediaBay functions.

## Importing OMF files

When importing OMF files, you can now choose between two options specifying at which time position the files will be placed in the project.



Options for positioning the data on the timeline

The Import options dialog for an OMF file

- “Import at Timecode Position” will insert the elements contained in the OMF file at their original timecode positions.

This is useful when you want to position every imported element at its exact timecode position, i.e. as it was saved in the OMF file. This way, the elements will end up at their correct time positions even when Nuendo uses a different frame rate than the OMF file.

This is usually required in a picture-related context.

- “Import at Absolute Time” will insert the elements contained in the OMF file starting at the timecode position saved in the file and keeping the relative distances between the elements.

This is required when the relative positioning of the elements inside the OMF file needs to be maintained after importing it into the Nuendo timeline (even if Nuendo is set to a different frame rate than the OMF file).

This is usually required in musical environments, where the timing between objects has highest priority.

## Routing the metronome click to a VST Instrument

When setting up a metronome MIDI click, you can use a VST Instrument to provide the sound for the click.

1. On the Transport menu, select “Metronome Setup...”.
2. In the MIDI Click section, open the MIDI Port/Channel pop-up menu and select a VST Instrument from the list. Note that the instrument must have been set up in the VST Instruments window. Make sure that Activate MIDI Click is activated.

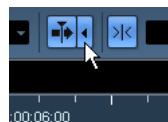
When you now start playback and a sound is selected in your VST Instrument, the metronome click will be heard using the VSTi selected above.

## Suspending Autoscroll

On the main toolbar in the Project window, as well as in the various editors, you will find the Autoscroll button. When this button is activated, the display will scroll during playback, keeping the project cursor visible in the window at all times.

When editing parts or events during playback with Autoscroll enabled, you may suddenly “lose sight” of the edited material as the display follows the project cursor.

If you don't want the Project window display to change when editing during playback, you can activate the “Suspend Autoscroll when Editing” button. You will find this button right next to the Autoscroll button.



Suspend Autoscroll when Editing

When this option is enabled, autoscrolling is suspended as soon as you click anywhere in the event display during playback.

Proceed as follows:

1. Open a project that contains audio or MIDI parts/events.
2. Enable both the “Autoscroll” and the “Suspend Autoscroll when Editing” buttons (both buttons turn blue).
3. Start playback.
4. Edit an audio or MIDI part/event of your project (e.g. click and drag it to a different location on its track).  
The Autoscroll button turns orange.

Autoscrolling is now suspended, i.e. when the project cursor moves to the right edge of the Project window, the display will not follow to keep the cursor visible.

As soon as playback stops, or when you click the Autoscroll button again (so it turns blue), Nuendo returns to the normal Autoscroll behavior.

## About the Stereo Export option

Among other things, the Export Audio Mixdown dialog allows you to mix down a multichannel output bus. One of the options determining the channel content of the resulting file(s) is “Stereo Export”.

When “Stereo Export” is activated, Nuendo extracts only the left and the right channel from the multichannel source. They are saved as the left and right channels in a single stereo file.

## Nuendo 4.3 and the SyncStation

Nuendo 4.3 supports forward-looking technologies. The update provides full technical support for the Nuendo SyncStation – the eagerly awaited synchronizer that provides unprecedented capabilities in combination with Nuendo. This outstanding unit allows sample-accurate synchronization and machine control – required by those working in AV studios and production facilities.

The synchronization options provided by the SyncStation are visible in Nuendo even if you don't have the SyncStation connected to your system: In Nuendo, open the Project Synchronization Setup dialog, and in the Timecode Source section, activate the “Steinberg SyncStation” option.

Further options related to the SyncStation can be found on the Devices menu and in the Device Setup dialog (Transport–SyncStation page). They are described in detail in the SyncStation manual.

⇒ When no SyncStation is connected to your computer, the “Steinberg SyncStation” section of the Project Synchronization Setup dialog displays the message “No USB MIDI port!”. Also note that some messages and options relating to the SyncStation are available in English only.

## Changes and additions to the Project Synchronization Setup dialog

### Naming changes

The naming used for some sections of the Project Synchronization Setup dialog has been changed to show more clearly the relationship between the various components within a given synchronization setup.

The arrows shown between the various sections of the dialog indicate how settings in one section influence settings in another section.

The largest section in the dialog is the “Nuendo” section. You cannot make any settings in this section – it is provided to help you visualize the role that Nuendo takes in your setup.

Your settings in the Machine Control Output Destination and Machine Control Input Source section determine whether Nuendo is the “machine control master” or the “machine control slave”.

- When Nuendo is to be the machine control master, select one of the options in the “Machine Control Output Destination” section.

The arrow pointing away from the “Nuendo” section indicates that machine control commands are sent by Nuendo to a slave device.

- When Nuendo is to be the machine control slave, select one of the options in the “Machine Control Input Source” section.

The arrow pointing towards the “Nuendo” section indicates that Nuendo receives machine control commands from a master device.

- Use the options in the sections “Machine Control Output Settings” and “Machine Control Input Settings” to specify the port(s) used for machine control signal transfer.

## New options in the Timecode Preferences section

Two new options can be found in the Timecode Preferences section of the Project Synchronization Setup dialog:

### Jam-Sync

When Jam-Sync is activated, and transmission of external timecode is interrupted, Nuendo playback/recording will continue.

When this option is activated, the Drop Out Frames option is not available, and the set limit for drop out frames has no effect.

### Auto-Detect Frame-Rate Changes

Timecode data always contains information on the frame rate currently set for the transmitting device (either 24 fps, 25 fps, 30 fps, or 30 dfps).

The option “Auto-Detect Frame-Rate Changes” determines what happens if the frame rate currently set in the Project Setup dialog does not match the frame rate of the timecode received by Nuendo:

- When this is activated, and a frame rate mismatch is detected, Nuendo playback/recording will be stopped and you will be prompted to confirm the frame rate change. Confirming the prompt with OK changes the frame rate set in the Project Setup dialog.

- When this is deactivated, any frame rate mismatches will be ignored and playback/recording in Nuendo will continue.

In Nuendo, detected mismatches are displayed in the Sync section of the Transport panel.

- ⚠ Deactivating “Auto-Detect Frame-Rate Changes” will prevent interruption of playback/recording in Nuendo. Please be aware, however, that differing frame rates may lead to a situation where you cannot locate to a particular position in your project using an external device.

## Transport controls in the Nuendo section

When the Project Synchronization Setup dialog is open, no other controls (including key commands) of Nuendo are available.

Therefore, some of the transport controls can also be found at the bottom of the Nuendo section. They allow you to test your synchronization settings without having to close the Project Synchronization Setup dialog.

The controls available here are the Sync, Cycle, Stop and Play buttons, and the Primary Time Display (see the Operation Manual for a detailed description).

## Project setup

At the bottom left of the Project Synchronization Setup dialog you will find two sections with options from the Project Setup dialog (for details about this dialog, see the chapter “The Project window” in the Operation Manual).

- ⇒ The Project Setup options are visible only if you have opened a project in Nuendo.

These options are the same as in the Project Setup dialog, but are split into two separate sections.

- In the “Project Setup – Time” section you will find all parameters that influence the project timeline.
- In the “Project Setup – Display” section you will find the parameters affecting the display of the project data.
- The Video Pull option in the “Project Setup – Time” section is not found in the Project Setup dialog.

Video Pull was moved from the Device Setup dialog to this section to enable you to make all synchronization settings from one dialog.

- When you change any of the parameters in the Project Setup sections, the section heading of the top section changes to an Apply button.

Click this button to apply your changes. If you close the Project Synchronization Setup dialog (either by clicking OK or Cancel) without applying your Project Setup changes, these will be lost.

⇒ Unlike the other settings in the Project Synchronization Setup dialog, which are applied globally, the Project Setup options affect the setup of the active project and are saved with it.

### **Send MIDI Clock in Stop Mode**

In the MIDI Clock Destinations section in the lower right corner you can find the option “Send MIDI Clock in Stop Mode”.

- When this option is activated, Nuendo will send MIDI Clock signals to the selected MIDI Clock destinations even when Nuendo is in Stop mode.

This is, for example, useful if you are working with a keyboard that has a built-in arpeggiator, the tempo of which you are controlling via MIDI Clock messages. This way, the arpeggiator will keep the right tempo even when Nuendo is in Stop mode. You may also be able to use this feature with some external drum machines, as it allows you to play the drum patterns in the current sequencer tempo even when Nuendo is stopped.

- When this option is deactivated, Nuendo will send MIDI Clock signals to the selected MIDI Clock destinations only during playback.

In this mode, you will not be able to use the above-mentioned arpeggiator of your keyboard in Stop mode.

⇒ Keep in mind that the MIDI Clock information always refers to the tempo at the current project position.

## **Opening Cubase 5 projects in Nuendo 4.3**

Projects created in Cubase 5 can be opened, edited and saved with version 4.3 of Nuendo.

- ⚠ Data pertaining to features that are specific to Cubase 5 are not audible or visible in Nuendo 4.3. When you save a Cubase 5 project with Nuendo 4.3, any such data may be removed from the project, and will no longer be available, even when opening the project again in Cubase 5.

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