



Operation Manual



NUENDO

Advanced Live Production System

live

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This PDF provides improved access for vision-impaired users. Please note that due to the complexity and number of images in this document, it is not possible to include text descriptions of images.

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Introduction

Typographical Conventions

Many of the default key commands use modifier keys, some of which are different depending on the operating system.

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]”.

This manual often refers to right-clicking, for example, to open context menus. If you are using a Mac with a single-button mouse, hold down [Ctrl] and click.

User interface controls such as menu options, buttons, or dialog titles, are highlighted in bold:

- In the **Output Mode** section, select **Multi track mode**.

How You Can Reach Us

On the Help menu, you will find items for getting additional information and help. The menu contains links to various Steinberg web pages. With the Registration command, you can register your product with Steinberg.

System Requirements and Installation

System Requirements

Windows

- Windows 7
- Intel or AMD dual-core CPU
- 2GB RAM
- 2GB of free hard disk space
- Windows compatible audio hardware; ASIO compatible audio hardware recommended for low-latency performance
- Display resolution of 1280 x 800 recommended
- USB port for USB-eLicenser (license management)
- CD/DVD-ROM dual-layer drive (when delivered on installation media)
- Internet connection (when product is downloaded from the Internet, and for license activation)

Mac OS X

- Mac OS X 10.7
- Intel dual-core CPU
- 2GB RAM
- 2GB of free hard disk space
- CoreAudio compatible audio hardware
- Display resolution of 1280 x 800 recommended
- USB port for USB-eLicenser (license management)

- CD/DVD-ROM dual-layer drive (when delivered on installation media)
- Internet connection (when product is downloaded from the Internet, and for license activation)

Installing the Program

You have two possibilities to install your program, via the Start Center application or manually.

Installing the Program Via the Start Center

The Start Center application is an easy way to install your program and inform yourself about news or last-minute changes. We recommend to install your software via the Start Center.

- For Steinberg software delivered on an installation media, the Start Center launches automatically as soon as you insert the disc in your computer's CD/DVD drive, provided that autorun is activated.
- For Steinberg software downloaded from the Internet, the Start Center launches when you double-click the downloaded file.

PROCEED AS FOLLOWS

1. In the Start Center, click **Installation**.
 2. Follow the instructions on screen.
-

Installing the Program Manually

If you do not want to install the program via the Start Center, you can install it manually.

- On Windows systems, double-click the file "Setup.exe" and follow the instructions on screen.
- On Mac OS X systems, double-click the file "Nuendo Live.mpkg" and follow the instructions on screen.

USB-eLicenser

Operation of Steinberg software often requires a USB-eLicenser, a hardware copy protection device (or “dongle”).



The USB-eLicenser is a USB device on which your Steinberg software licenses are stored. All hardware-protected Steinberg products use the same type of device, and you can store several licenses on one device. Also, licenses can – within certain limits – be transferred between USB-eLicensers.

If your Steinberg software product does not include a USB-eLicenser, you can purchase one through the Steinberg online shop.

In the eLicenser Control Center, you can activate new licenses and check which licenses are installed on your USB-eLicenser. After installation of your Steinberg application, the eLicenser Control Center can be opened via the Start menu on Windows systems or the Applications folder on Mac OS X systems.

NOTE

If you are using other copy-protected Steinberg products, you may want to transfer all licenses for your applications to one USB-eLicenser, thus using up only one USB port of your computer. Refer to the eLicenser Control Center Help for information on how to transfer licenses between USB-eLicensers.

Activating Your License

You must activate your license. If your USB-eLicenser already contains an activated license, you can skip this section.

PREREQUISITE

Connect to the Internet.

If you purchased your product via the Steinberg online shop, you also received an e-mail with a license activation code. Use this code to download your license to your USB-eLicenser.

If your product was delivered on an installation medium, the product package may contain an empty USB-eLicenser and the Essential Product License Information sheet with an activation code.

PROCEED AS FOLLOWS

1. Plug your USB-eLicenser into a USB port of your computer.
 2. Start the eLicenser Control Center software.
 3. Click the **Enter Activation Code** button.
 4. Enter your activation code and click **Next**.
-

RESULT

The license is downloaded to your USB-eLicenser and activated.

Registering Your Software

Register your product at the MySteinberg online customer portal. As a registered user, you are entitled to technical support, gain access to exclusive offers such as software updates and upgrades, and more.

PREREQUISITE

Connect to the Internet, and start your software.

PROCEED AS FOLLOWS

1. Select **Help > Registration**.
An online registration form opens in your web browser.
 2. Follow the instructions on screen to register at MySteinberg.
-

Setting Up Your System

To be able to record and play back a performance, you must first establish all physical connections between Nuendo Live and the other components of your system, set up the audio interface, and select the playback output mode.

Setting Up for Recording

PREREQUISITE

Set up the physical connections between the components of your system. See the documentation of your hardware for more information.

Deactivate any power saving options on your computer, to avoid performance issues and to keep the computer from going into sleep mode during long recordings.

PROCEED AS FOLLOWS

1. Start Nuendo Live, and click **Settings**.
2. In the **Audio System** section, select the ASIO driver that you want to use.
3. Optional: Click **Control Panel** to make further settings for your ASIO driver.

If you use digital connections, we recommend that you define the mixing console as the word clock master within your setup. When Nuendo Live receives word clock signals from the master device, it displays the corresponding hardware sample rate.

4. In the **Audio Ports** list, deactivate any ports of your ASIO device that you do not want to use.

When you create a new project, a track is added for each activated input port.

RELATED LINKS:

[Settings Dialog on page 23](#)

Output Mode

The options in the **Output Mode** section of the **Settings** dialog determine how your recording is played back.

Multi track mode

Plays back the recorded audio tracks via a corresponding number of ASIO ports. This allows you to make a soundcheck without having the artists present, for example.

Stereo mode

Tracks are mixed down to two ports. In the track list, a level and a pan fader are displayed for each track, and a **Stereo Out Level** control is displayed at the top of the track list, allowing you to control the mixdown process. In this mode you can listen to the recording using headphones, for example.

RELATED LINKS:

[Settings Dialog on page 23](#)

Getting Started

Recording in Three Simple Steps

Nuendo Live is a quick and easy-to-use solution for live-recording engineers. To get ready and start recording, very few steps are necessary.

PROCEED AS FOLLOWS

1. Start Nuendo Live and create a new project.
 2. Open the **Record** panel.
 3. Click the **Record** button.
-

RESULT

The program starts recording on as many tracks as audio inputs are available on your audio card.

Projects

Recordings made with Nuendo Live are saved as project files.

Projects contain all data created during a recording. A project is opened in the Project window, which is the main window in Nuendo Live.

- The file name extension is .nlpr.
- Only one project can be open at a time.
- Project files from Nuendo Live can be opened in Nuendo (Nuendo 5.5.4 or higher).

Creating a New Project

PREREQUISITE

Set up the parameters in the **Settings** dialog according to the requirements of your project.

PROCEED AS FOLLOWS

1. Start Nuendo Live, and in the **Projects** dialog, select **New Project**.
You can also select **File > New Project**.
2. Navigate to the folder in which you want to save the new project, and click **OK**.
The folder name is used as the project name. You can rename a project by selecting **File > Save as**.

RELATED LINKS:

[Settings Dialog on page 23](#)

Recording with the Record Panel

In the Record panel, you can make recording-related settings and start recording.

PROCEED AS FOLLOWS

1. Click the **Record Panel** button to open the **Record** panel.
2. Click **Arm All Tracks**.
All tracks that are connected to an input port are now ready for recording.
3. Optional: Click **Locate End**.
This moves the project cursor to the end of the last recording.
4. Click **RECORD**.
Recording starts and audio events are created in the Project window.
5. Optional: Click the **Lock** button to prevent you from inadvertently interrupting the recording.
6. To stop recording, click **RECORD** again.

RELATED LINKS:

[Record Panel on page 28](#)

Playing Back Your Recording

You can verify the quality of your recording by going back to the beginning and listening to it.

PROCEED AS FOLLOWS

1. On the toolbar, click the **Go to Previous Marker/Zero** button to move the project cursor to the beginning of the project.
 2. Click the **Start** button.
-

Exporting Your Recording

You can export your recordings as an audio mixdown, or as an AAF file.

Exporting an Audio Mixdown

You can create a rough stereo mix of your recording and export it as a single file.

PREREQUISITE

You have selected **Stereo mode** in the **Settings** dialog.

PROCEED AS FOLLOWS

1. Use the level and pan faders of your tracks to balance the mix.
2. Use the **Stereo Out Level** fader at the top of the track list to set the master level.
3. To export a particular section of your project, set the locators on the ruler so that they encompass this section.
4. Select **File > Audio Export**.
5. In the **Mixdown** dialog, select the target file format, MP3 or WAV.

6. Specify whether you want to export the entire project or only a section of the project.
 7. Click **OK**.
-

RESULT

A single file is exported to the project folder. The mixdown file is given the name of the project.

Exporting to AAF

If you want to edit your recordings in DAW software other than Nuendo, you can export the project as an AAF file. This format is compatible with various DAW formats.

PREREQUISITE

The audio files are recorded in Broadcast Wave format.

PROCEED AS FOLLOWS

- Select **File > Export AAF File**.
-

RESULT

The project is exported to the project folder as a single AAF file.

IMPORTANT

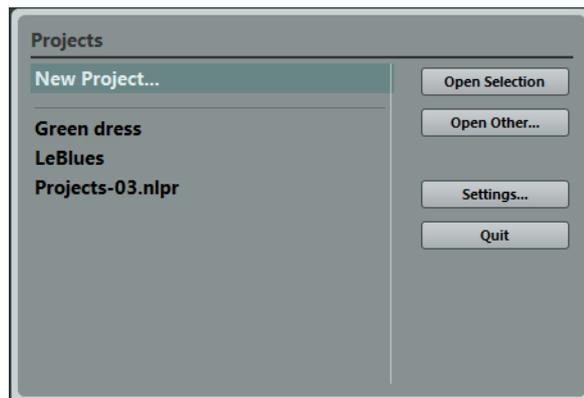
The AAF file contains only references to the audio files within the project. When you want to export your project for further editing, you have to include both the AAF file and all audio files belonging to the original project.

Getting Into the Details

This section contains detailed descriptions of the functions of Nuendo Live.

Projects Dialog

The **Projects** dialog is displayed when you open Nuendo Live. It allows you to open an existing project or to create a new project.



Open Selection

Opens the project that is selected in the list on the left. Select **New Project** to open a new empty project.

Open Other

Opens a file dialog where you can navigate to a project.

Settings

Opens the **Settings** dialog.

Quit

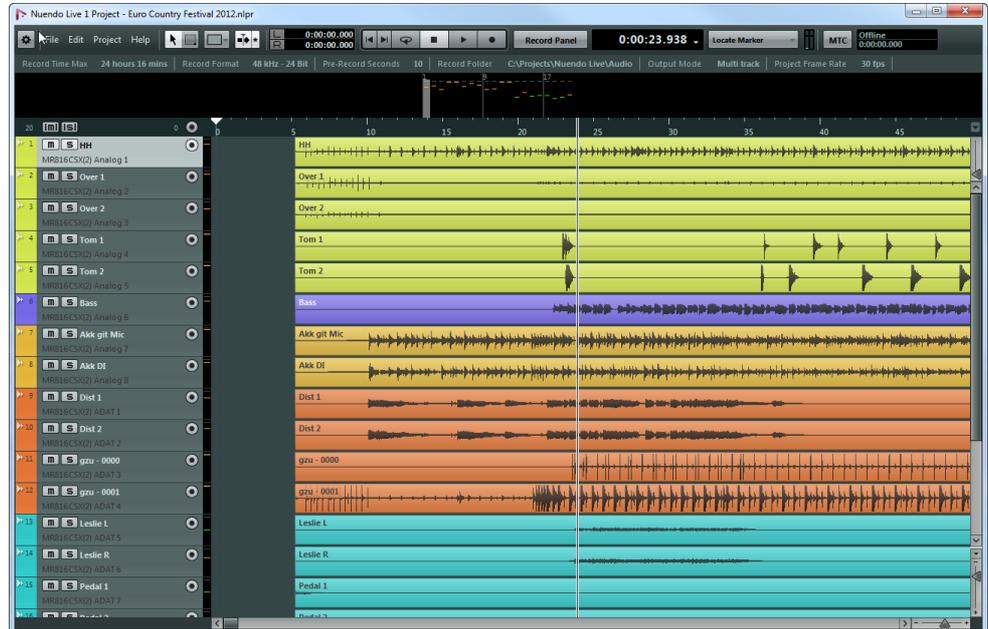
Quits the program.

RELATED LINKS:

[Settings Dialog on page 23](#)

Project Window

A project is always displayed in its own Project window.



Toolbar

The toolbar provides access to the main dialogs, menus, a number of editing tools and options, and the transport controls.

Info Line

The info line displays project-related information. You can change some of these parameters in the **Settings** dialog.

Meters View



During playback, the meters are displayed in the meters view. The number of meters that are displayed depends on the number of tracks.

Track List

The track list shows all tracks of the project and provides a number of controls for each track.

Global Controls



At the top of the track list, you can find the global controls. The leftmost number corresponds to the tracks of the project. The Mute and Solo buttons allow you to unmute all tracks or deactivate all solo. To the right, the number of record-enabled tracks is displayed next to the button that record-enables all tracks.

Track controls

The controls on a track allow you to mute, solo, and record-enable this track. In Multitrack mode, the names of the input and output ports used by the track are displayed. In Stereo mode, you can set the volume and the pan position for the track in the stereo mix.

Event Display

The event display to the right of the track list shows the audio events and markers if the marker track is displayed. A ruler, zoom controls, and the project cursor help you to navigate and locate positions.

Ruler

Above the display, the ruler shows the timeline. The two triangular markers on the ruler are the locators. They define the cycle area.

Zoom Controls

The horizontal and vertical zoom sliders zoom in or out of the main display. When you click the triangle above the vertical zoom slider, the zoom pop-up menu opens, from which you can select a zoom preset.

Project Cursor

The white vertical line is the project cursor. It indicates the playback position. When playback is stopped, this is where the editing is performed.

RELATED LINKS:

[Settings Dialog on page 23](#)

Cleaning Up Your Project

Before moving your project to a different DAW for further editing, you should clean up your recording.

Nuendo Live provides a number of editing options and tools that allow you to make your project more manageable, for example, by removing tracks or events that are no longer required.

Editing Audio Events

You can use the editing functions to prepare the recorded audio events for post-production or mixing.

Global Editing

You can decide whether you want to apply your editing operations to one track or to all tracks.

Normally, editing is applied to the selected event or the event on which you click with a tool. When you select **Edit > Global Editing (All Tracks)**, the editing is performed on all tracks.

Duplicating Events

You can duplicate events to use the same recordings in several different places.

PROCEED AS FOLLOWS

1. Select one or more audio events.
 2. Select **Edit > Duplicate**.
-

RESULT

The event is duplicated, and the duplicated event is inserted to the right of the original event.

Copying Events

You can copy events by selecting **Edit > Copy** or by holding down [Alt]/[Option] and dragging events to the position where you want to insert them.

Splitting Events

Splitting events is useful to remove unwanted sections of the recorded audio, or to move sections of events to other positions.

PROCEED AS FOLLOWS

1. You can split events using two methods:
 - Place the project cursor at the position where you want to split the events and select **Edit > Split at Cursor**. This splits all events at the project cursor on all tracks.
 - Press [Alt]/[Option], and click on an event at the position where you want to create a split.
-

Trimming the Event Start and End

You can drag the event borders to hide sections of the recording or reveal them again.

PROCEED AS FOLLOWS

1. Position the mouse on the lower right or left border of an event so that a double arrow is shown.



2. Click and drag.

How much you can drag depends on the length of the recording. An event cannot be extended beyond the start or end of the audio recording. When you release the mouse button, a fade of 10 ms is added, to create smoother transitions.
-

RELATED LINKS:

[Settings Dialog on page 23](#)

Changing the Track Routing

You can change the routing by rearranging tracks in the track list. This can become necessary if an instrument is connected to another input on the console, for example.

PROCEED AS FOLLOWS

1. Click on a track and drag it up or down in the track list.
The tracks are always routed to the available inputs from top to bottom.
-

Selecting Ranges

The Range Selection tool allows you to create selection ranges that span any number of tracks in the project.

PROCEED AS FOLLOWS

1. On the toolbar, select the Range Selection tool.
 2. Click and drag in the Project window until the selection encompasses the range that you want to select.
-

Moving Event Sections

You can drag a section of an event to another position within the project.

PROCEED AS FOLLOWS

1. Create a selection range.
 2. Drag the selection to a new position.
-

RESULT

Events are cut at the range selection borders. The selected section is moved to the new position.

Selecting All Events Under the Cursor

You can select all events in the project that reside at the same time position. This makes it easy to apply the same editing to all events that belong together.

PROCEED AS FOLLOWS

1. Place the cursor at the position in the project where you want to select the events.
 2. Select **Edit > Select Under Cursor**.
All audio events and markers that are touched by the position cursor are selected.
-

Customizing the Program

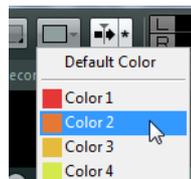
By customizing the program, you can speed up or facilitate your workflow.

Coloring Tracks and Events

Colors can help you identify elements that belong together, for example, instruments, or artists.

PROCEED AS FOLLOWS

1. Do one of the following:
 - To color a track, select the track and make sure that no event is selected.
 - To color an event, select the event.
2. On the toolbar, open the **Colors** pop-up menu and select a color.



Renaming Tracks

It is easier to keep an overview of your project if you give meaningful names to the tracks, for example, by naming them according to the instruments that you want to record.

PROCEED AS FOLLOWS

1. Double-click the first track name in the track list and type a new name.
2. Press [Tab] on your computer keyboard to select the next track name, and continue naming the tracks in your project.

Recorded events are named according to the track name. The names of existing events and files do not change when you rename a track.

Adding Tracks

You can add tracks to the project manually, so that you do not have to rely only on the automatically created project setup.

PROCEED AS FOLLOWS

1. Select **Project > Add Audio Tracks**.
 2. Specify the number of audio tracks that you want to add and click **OK**.
-

Switching the Program Language

The user interface of Nuendo Live is available in several languages.

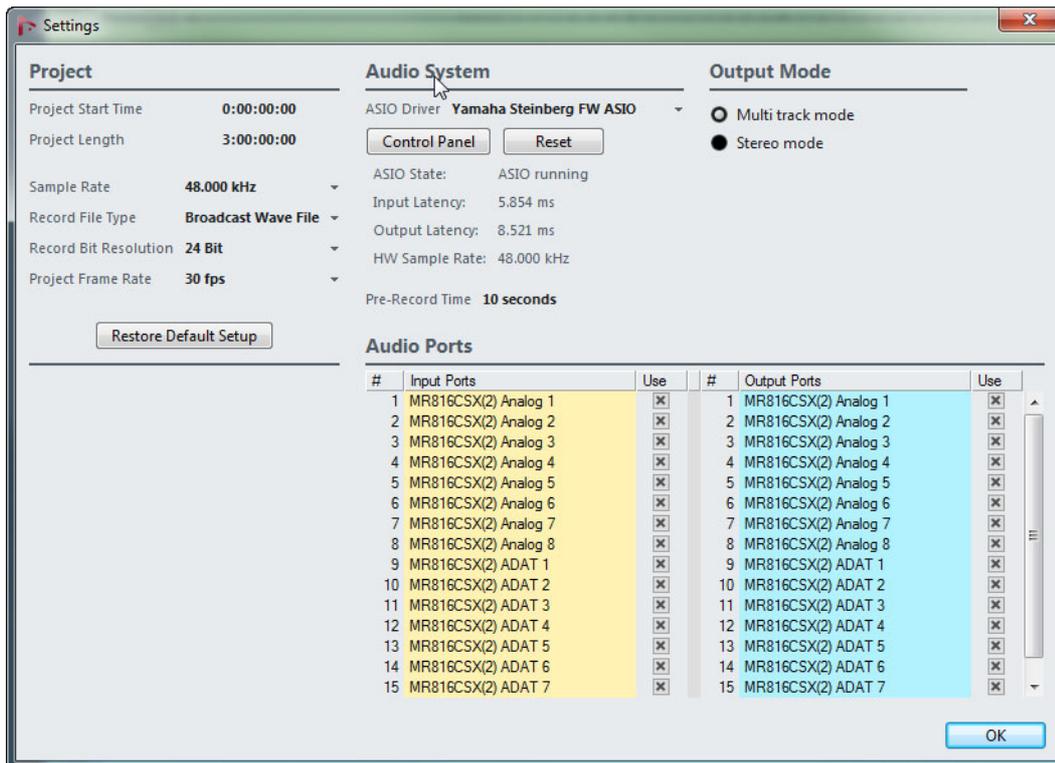
PROCEED AS FOLLOWS

1. Select **File > Language** and select another language from the submenu.
 2. Restart the application for the language change to take effect.
-

Settings Dialog

In the **Settings** dialog, you can make project-specific settings, establish the connections between Nuendo Live and the audio device of your computer, and select an output mode for your recording.

To open the dialog, select **File > Settings**.



Project Section

This section is only displayed if a project is open.

Project Start Time

The start time of the project. The value you specify here is displayed as the start value of the ruler.

Project Length

The length of the timeline when you create a new project.

NOTE

When your recording exceeds this length, the project length is automatically extended. No recorded data is lost.

Sample Rate

The sample rate of the recording.

NOTE

The sample rate must correspond to the hardware sample rate.

Record File Type

The file type used in your recordings.

- Broadcast Wave is the most commonly used format. It can store meta data, such as timecode position or artist, without loss in quality.
- Choose the Wave format if you want to use the recorded files in a system that does not support Broadcast Wave files. Note that in the Wave format, you cannot record files larger than 4 hours at 48kHz.
- Wave 64 supports recordings larger than 4GB. This format is not widely supported. You can use it if you want to use the recording in an older Nuendo system.
- For recordings larger than 4GB, the EBU RIFF 64 standard is used. If a FAT 32 disk is used (not recommended), audio files are split automatically.

Record Bit Resolution

The bit resolution used in your recordings.

- The most common resolution is 24Bit.
- 16Bit allows for smaller file sizes. However, when recording audio with very low levels, this can have an impact on the quality.
- 32 Bit Float offers the best quality for postproduction. Use this setting when you want to process the recorded files in a Nuendo system.

Project Frame Rate

The frame rate of the project. If you want to synchronize your recordings to video during postproduction, select a compatible frame rate. If Nuendo Live receives timecode information during your recording, this value is set automatically.

Restore Default Setup

This function makes sure that for each activated input port, an audio track is available and assigned to that port. If necessary, new tracks are created, or surplus tracks are removed.

Audio System Section

ASIO driver

Here, you select which ASIO driver is used.

Control Panel

Opens the control panel for the selected ASIO driver. Which options are available depends on your audio hardware.

Reset

Resets the ASIO driver. This reestablishes the communication between the audio card and Nuendo Live. This function can be used to solve problems with your audio system.

ASIO State

When the ASIO driver is not working properly, an error message is displayed here.

Input Latency

The input latency of your audio system.

Output Latency

The output latency of your audio system.

HW Sample Rate

The sample rate of the hardware.

Pre-Record Time

When you record-enable a track, all incoming audio is automatically recorded to a buffer. This parameter defines the size of that buffer. This means that once your tracks are armed, even when you start recording a little too late and miss the beginning of a performance, some or all of the missed material will have been recorded to the buffer.

NOTE

The pre-record function takes up RAM for every input. At high sample rates (96kHz, 192kHz), this may exceed the memory available on your computer. As a general rule, a pre-record time of 1 minute takes up 8MB per track at 48kHz, and 16MB at 96kHz.

NOTE

When recording a large number of tracks (more than 64), high pre-record settings can result in the screen redraw becoming sluggish.

Audio Ports

The **Use** column defines which ports are used for recording and playback.

NOTE

When you create a new project, a track is created for each activated input port.

NOTE

When opening a project in the full version of Nuendo, the routing of tracks to busses from Nuendo Live is not reestablished in Nuendo.

Output Mode Section

Multi track mode

When this option is activated, each audio track is sent to a separate output on your audio card.

Stereo mode

When this option is activated, all audio tracks are output as a stereo downmix.

NOTE

When opening a project in the full version of Nuendo, any level and pan settings made in Stereo mode are assigned to Aux Send 1.

Recording MIDI Timecode Information

In productions that contain video, usually one central timecode is distributed. You can save timecode information in your recordings to make it easier to place them on the timeline during post-production.

PROCEED AS FOLLOWS

1. On the toolbar, activate the **MTC** button.
 2. Click in the field to the right of the button, and select the input source for the MIDI timecode.
 3. Start recording.
-

Easy Recording

Nuendo Live provides a function to start recording immediately, without having to arm tracks as a separate step. This is helpful in situations in which the artists begin performing without waiting for the recording preparations to complete.

PROCEED AS FOLLOWS

- Press [Ctrl]/[Command]-[*].
-

RESULT

- All tracks are armed.
- Recording starts.
- The **Lock** option in the **Record** panel is activated.

RELATED LINKS:

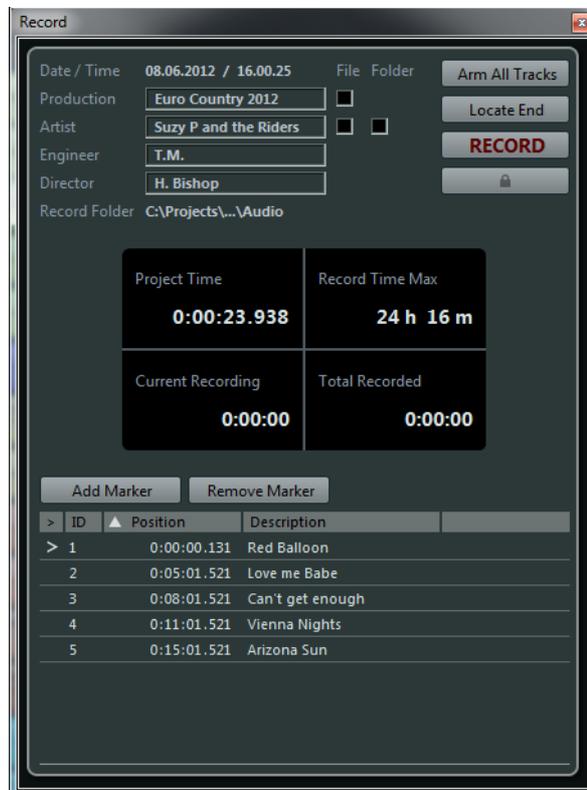
[Record Panel on page 28](#)

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[Trimming the Event Start and End on page 19](#)

Record Panel

The **Record** panel combines all recording-related parameters and controls.



Metadata Section

The data in the section at the top left are saved with Broadcast Wave files.

Date/Time

Displays the current date and time.

Production

The name of the production.

Activate the **Include production in file name** checkbox if you want the name to be added to the file name automatically.

Artist

The name of the artist.

Activate the **Include artist in file name** checkbox if you want the name to be added to the file name automatically. Activate **Create subfolder for artist** if you want to save the recording in a subfolder of the project folder, named after the artist.

Engineer

The sound engineer of the project.

Director

The director of the project.

Record Folder

The folder in which your recordings are saved. Click on the path to open the folder.

Record Buttons Section

Arm All Tracks

Click this button to record-enable all audio tracks that are assigned to an audio input.

Locate End

Click this button to position the project cursor at the end of the last recording.

Record

Click this button to start recording.

Lock

Click this button to lock recording. When this button is active, you cannot stop recording or change the track arming.

Time Displays Section

Project Time

The current position of the project cursor.

Record Time Max

The time that you have left for recording, depending on the project settings and the available harddisk space.

Current Recording

The length of the current recording.

Total Recorded

The total length of the recorded audio in the current project. Only the time of the actual recordings is taken into account, not the pauses between recordings.

Markers Section

Add Marker

Click this button to add a marker at the project cursor position.

Remove Marker

Click this button to remove the selected marker.

Markers list

In the first column, a symbol is displayed to indicate which marker is active. The second column shows the marker ID. The third column shows the marker position. You can change this value to move the marker in the project. In the fourth column, you can enter a description for the marker. This makes it easier to structure your project.

Markers

Markers identify particular positions within your recording.

You can add markers to determine the start and end of a song in a longer recording, mark a position for editing, etc. You can view and move markers using the marker track in the Project window. The **Record** panel allows you to add markers on-the-fly and to name them.

Showing the Marker Track

The marker track can be shown or hidden. This does not have any impact on the marker functions. Existing markers can be used even if you cannot see them in the Project window.

To open the marker track, select **Project > Show Marker Track**. This opens the marker track above the audio tracks in the Project window.

Creating Markers

You can create markers using the marker functions on the **Record** panel.

PREREQUISITE

Open the **Record** panel.

PROCEED AS FOLLOWS

1. Click the **Add Marker** button.
 2. Enter a meaningful name for the marker.
-

RESULT

The marker is inserted at the cursor position.

Locating to Markers

You can locate to markers using one of the following ways:

- In the track list, open the pop-up menu on the marker track, and select a marker .
- Click on a marker on the marker track.
- On the toolbar, click the **Locate Markers** button and select a marker from the list. If the list of markers is very long, you can use the text search function to narrow down the list.
- On the **Record** panel, click in the leftmost column for a marker.

Key Commands Dialog

You can control many of the functions in Nuendo Live through key commands. The available commands are listed in the **Key Commands** dialog.

To open the dialog, select **File > Key Commands**.

NOTE

You cannot add key commands or change any of the key commands listed in this dialog.
