




# TF series Live Recording with Steinberg Nuendo Live

1st Edition: August 2016



 **NUENDO**  
Advanced Live Production System *live*

## **Summary:**

*This guide will show how quick and easy it is to achieve a high quality, live multi-track recording using a Yamaha TF series digital mixer, the software of Steinberg Nuendo Live, and a PC.*

*Such a system is ideal for use as a virtual sound-check tool, and to create a concert archive for later mix-down using Steinberg or other professional Digital Audio Workstation software.*

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## Introduction

Yamaha TF series consoles (TF1, TF3, TF5) are now sold with a license to use with Steinberg Nuendo Live software. This is compatible with Mac and Windows computers, and can be used for multi-track live recording. It is designed to be simple and quick to setup and operate, while providing a stable and reliable recording environment. Up to 34 tracks can be recorded and played back through each TF series console via the rear panel USB connection.

## Equipment List

1. Yamaha TF series digital mixing console (TF1, TF3 or TF5)
2. One computer, either running Windows 7/8.1/10 or Max OS X version 10.9 or newer, with a minimum of:
  - a. Intel or AMD dual core CPU.
  - b. 2GB RAM
  - c. 8GB free HD space
  - d. 2x USB ports
  - e. Internet connection (just for license activation, setup and product registration)
3. Steinberg Nuendo Live software (a license is now bundled with TF series) and USB eLicenser.
4. Yamaha Steinberg USB Driver V1.9.8 (or newer) for Windows (not needed for Mac OS). Download from [www.yamahaproaudio.com](http://www.yamahaproaudio.com).

## Computer Recommendations

It is strongly recommended to use a computer with at least 2GHz processing speed, and at least 4GB RAM. A Hard Disk Drive with a speed of 7200rpm or faster (or a Solid State Drive) is recommended for recording and playback of more than 16 channels. If possible, use a separate drive for recording/playing the audio files: it will usually provide better performance than using the same drive that hosts the operating system.

With regard to disk storage, allow 500MB per hour for each mono track at an audio quality of 48kHz 24-bit. So for example, 120GB will be able to record 30 tracks for 8 hours. Or for a 2 hour show consisting of 24 tracks, allow 24GB of storage.

### **Tips:**

*Disable wireless networking and Bluetooth while recording, to improve the computer's performance.*

*Disable the computer's automatic indexing service on the disk drive used for recording and playback to further improve performance. In Windows 7/8.1/10, edit the "Indexing Options" in the Control Panel. In Mac OSX open the System Preferences, select "Spotlight", and add the required hard drive to the "Privacy" list.*

## Hardware Setup

The TF mixing system should be setup as normal, either using the Tio1608-D remote i/o units or not. Connect the computer with Nuendo Live installed via a standard USB cable to the TF console's rear USB socket, which is labeled "TO HOST". Connect the USB eLicenser for Nuendo Live to another port on the computer.



Simple live recording system with TF5



Live Recording system with TF5 & Tio1608-D I/O racks.

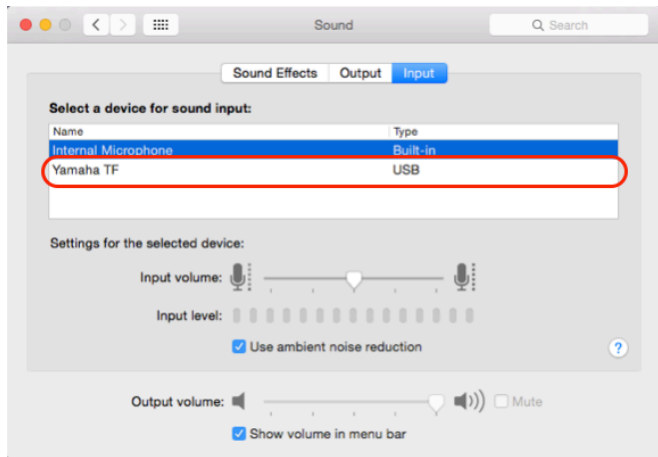
Sound engineers with some networking experience will be able to record the inputs from the I/O racks directly to the computer via Dante. This method, however, requires additional software and is not covered in this guide.

## Computer Preparation

Nuendo Live must be installed. This software is provided with recent new purchases of TF-series consoles. Refer to <http://www.steinberg.net> for the latest information and support about Nuendo Live. The use of Nuendo Live requires a USB eLicenser, which is also provided with a new purchase of TF-series. Or they can be purchased independently from Steinberg's website.

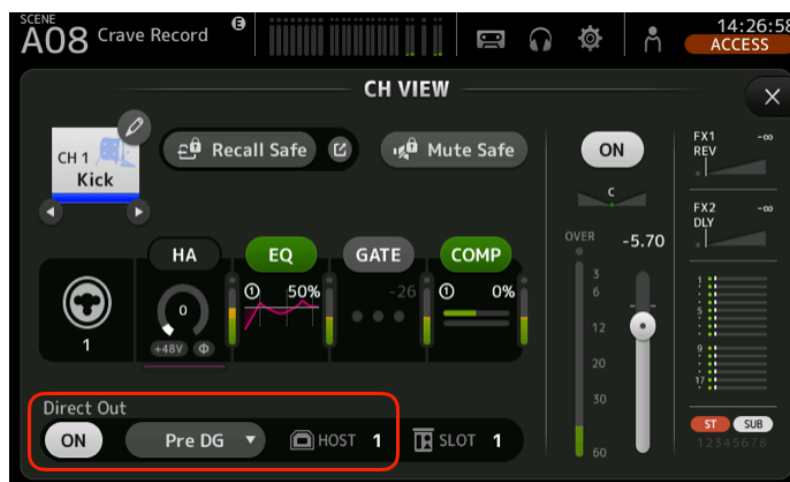
For computers running Windows, the USB driver must also be installed. The latest driver can be found at [http://www.yamahaproaudio.com/global/en/downloads/firmware\\_software/tf/](http://www.yamahaproaudio.com/global/en/downloads/firmware_software/tf/). As of July 2016, the latest version is V1.9.8.

Computers running Mac OSX will use a class compliant driver, so do not need any additional installation. While the TF-series console is connected to the computer, open System Preferences and select "Sound" to check that "Yamaha TF" is available.



## TF-series Console Preparation

By default, TF-series channels 1-32 each have a Direct Output enabled via the USB TO HOST port. Touch the input channel name on the screen to open the "CH VIEW" and check the setting.



Here the Direct Out can be switched on/off and the position can be changed. "Pre DG" means before the Digital Gain, so the recording will be without any EQ, dynamics or effects settings. This is the perfect position for making a realistic live recording and a

"Virtual Sound-Check". "Pre Fader" and "Post Fader" are also available, in case EQ and dynamics need to be applied before recording.

Select each channel in turn to verify their settings.

Input channels 33-40 (not available on TF1) and the Stereo Input channels do not have a Direct Out function, so they cannot be recorded.

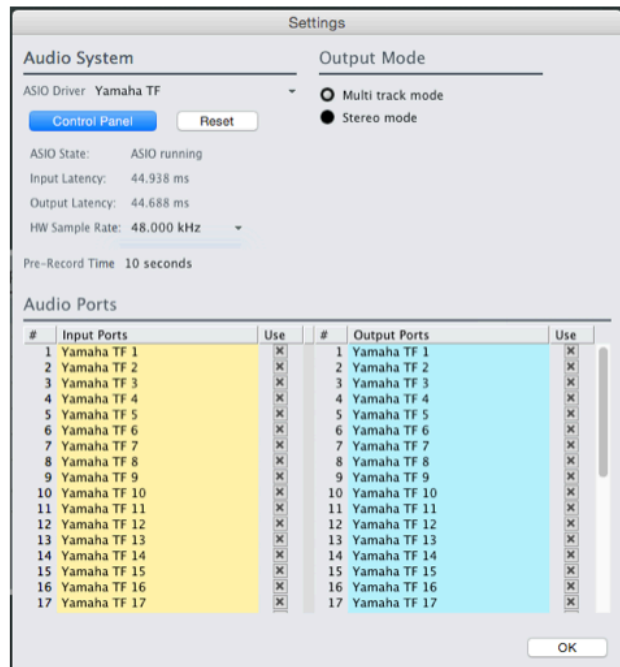
However, a pair of outputs can be selected for recording to USB channels 33-34. To set this, open the Recorder menu by touching the cassette tape icon at the top of the screen. In the "INPUT/OUTPUT" tab, the channels for recording can be selected as either ST L/R or a pair of the mono Aux buses (1-8).



Once all these settings have been edited, store them in a Scene Memory.

## Starting With Nuendo Live

When Nuendo Live is opened, it will show a list of recent projects, provide an option to start a new project, and give a shortcut to the "Settings" menu. Open this "Settings" menu first.



In the "Audio System" section, make sure the Driver selection is set to "Yamaha TF" with Mac OS, or "Yamaha Steinberg USB" for Windows. The "HW Sample Rate" must be 48.000 kHz to match the console.

The “Pre-Record Time” is a unique setting: Nuendo Live can capture up to 60 seconds of audio before the recording has started. Just in case the operator forgot to start the recording in time!

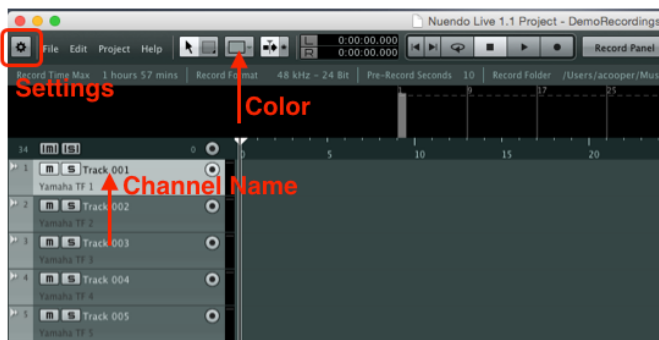
In the “Output Mode” section, make sure “Multi track mode” is selected. This will allow a “Virtual Sound-check” to be made later.

## New Project

Now open a new project and choose where to save the recorded files on the hard drive.

34 tracks will automatically be created in the project, though some customization could be helpful:

- The project’s settings can be accessed from the icon in the top-left corner, in case items such as file type and record start time need to be changed.
- Channel names can be edited by double-clicking on a name, and then typing. Use the tab key to move quickly to the next channel.
- Channel colors can also be edited, perhaps to match those used on the console.



## Prepare for Recording

Open the “Record Panel” by using the ctrl+R shortcut (cmd+R with Mac OS), or by clicking on the button in the middle of the tool bar.



- Click on “Arm All Tracks”. Now it should be possible to see the active level meters. Check that all the expected input signals are present.

- ii. Additional information about the recording can be entered in the Record Panel, such as Artist and Engineer names.
- iii. If some recording has already been made, press “Locate End” to enable the recording to resume at the place where it last stopped.
- iv. Then press “RECORD” to begin recording.
- v. The “lock” button can be pressed to lock the computer’s keyboard, to avoid accidental interruptions.



**Tip:**

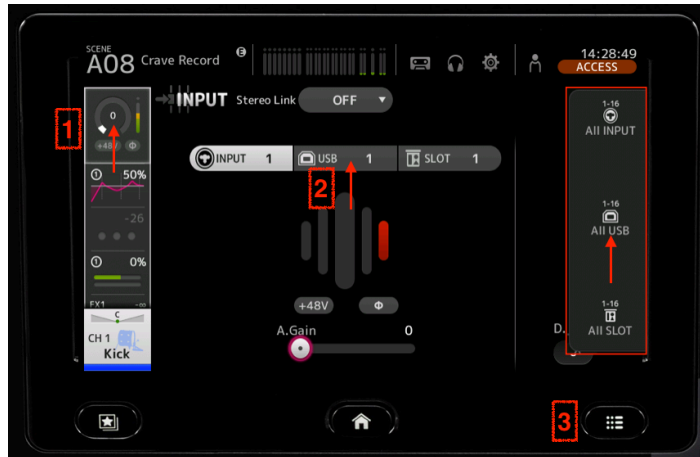
*If there is no time to make detailed settings, and the recording must start quickly, open the project and press ctrl+Enter (cmd+Return with Mac OS) to instantly start recording and lock the keyboard. Press ctrl+Enter (or cmd+Return) again to unlock the keyboard.*



## Playback from Nuendo Live

To playback the multi-track recording from Nuendo Live through the TF-series console, the console's inputs first need to be changed to "USB".

1. Select Input channel 1 and go to the "INPUT" screen by touching the input section at the top of the channel strip.
2. Select "USB 1" as the channel's input.

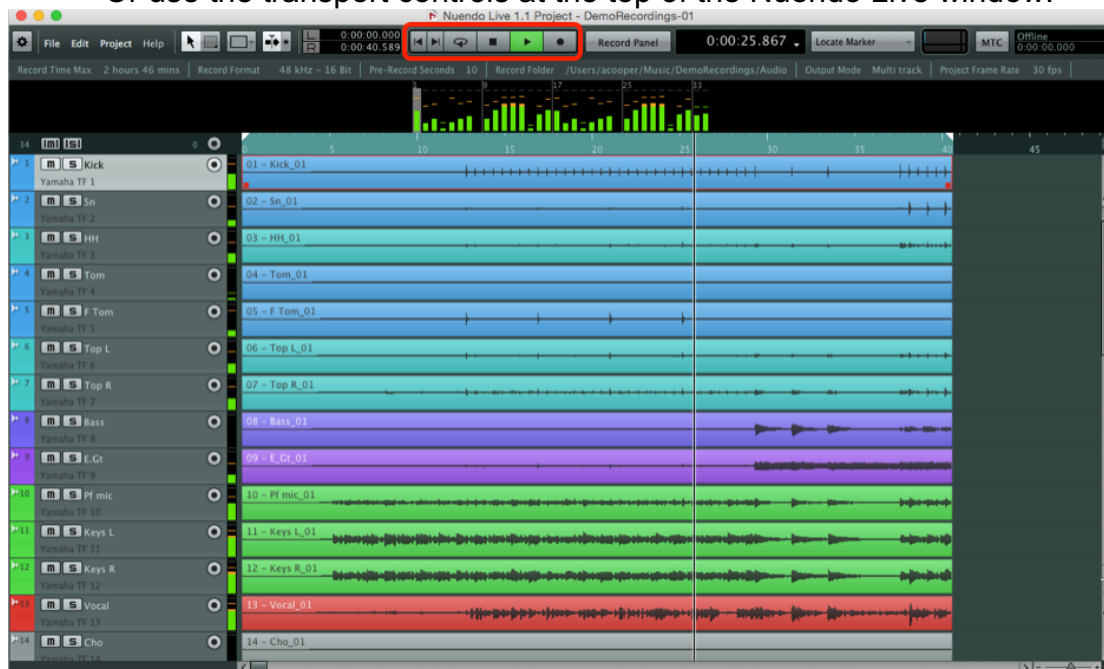


3. Do the same for all the other input channels. There is a shortcut for this: press the "Menu" key below the screen on the right. Then touch "ALL USB", which will set USB as

the input for all channels on the fader layer. TF1 and TF3 will require an additional operation to set the 2<sup>nd</sup> layer of inputs to USB: select channel 32 and use the same shortcut.

Now prepare Nuendo Live to play back the multi-track recording:

- Use the keyboard's "Space" bar to stop/start.
- Shift+B is a shortcut to return to the start of the recording (or the previous marker).
- Or use the transport controls at the top of the Nuendo Live window.



Now the recorded audio will be heard through the TF-series mixer, with the same EQ, dynamics and effects applied as used for the live sound mix. Some

input channels could be returned to their mic/line input to allow those performers to rehearse with the recording.

Don't forget to return the console's inputs to the mic/line connections after this "virtual soundcheck" is complete, to allow sound from the stage again.

***Nuendo Live Tips:***

- *Nuendo Live regularly performs an "Auto Save" as it runs, without interrupting the audio, so you can avoid accidentally losing any important recordings!*
- *Nuendo Live can be used to trim, split, cut, copy and paste audio tracks.*
- *In "Stereo Output Mode", a rough mix can be created on the PC by itself, using level and pan settings.*
- *The whole project can be directly loaded into compatible versions of Nuendo (v5.5 or later) and Cubase (v6.5 or later) for further mixing and editing.*
- *Audio Mixdowns can be exported as WAV or MP3 files.*
- *The project data can be exported as an AAF file for compatibility with other production systems.*

**Reference Websites:**

[www.yamahaproaudio.com](http://www.yamahaproaudio.com)

[www.steinberg.net](http://www.steinberg.net)