

**Date:** 2 of August, 2017

# Spatial Audio Workstation

## Release Notes

Version 2.3.5

### 1 Introduction

This document describes the steps to install the Spatial Audio Workstation 2 on your computer. Please read it carefully to ensure a correct installation of the software. After installation, you can find the operation manual of the Spatial Audio Workstation in the Windows start menu.

### 2 Installation

The Spatial Audio Workstation requires Microsoft Windows 7, 8 or 10 and an existing installation of Steinberg Nuendo 6.0 or 7.1.

Please note that Steinberg Nuendo 6.5, 7.0, 7.1.0, 7.1.20 do not work!

You always need to install the 32-bit version of Nuendo in order to use the Spatial Audio Workstation 2.3.5. The plug-in is not compatible with the 64-bit version of Nuendo.

**Note:** We strictly recommend to uninstall older versions of the Spatial Audio Workstation before installing the current version.

### 3 Installation of Spatial Audio Workstation

After downloading the Spatial Audio Workstation setup file, execute it to run the installation wizard. Follow the instructions on the screen to install the Spatial Audio Workstation plug-in. As part of the process you will be prompted to enter the folder where your Nuendo installation is located. Browse to the respective folder if it is not detected automatically. The Spatial Audio Workstation will install its plug-ins for this Nuendo installation. Please note that you must provide the path to your actual Nuendo installation, not the one where the VST plug-ins are located.

**Note:** *If the installer fails and reports that .NET Framework 2.0 is not installed on your computer you need to download the .NET Framework 2.0 from the Microsoft website and install it before installing the Spatial Audio Workstation. You can find the .NET Framework at the following locations:*

*.NET Framework 2.0 for 32-bit Windows systems:*

<http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=0856each-4362-4b0d-8edd-aab15c5e04f5>

*.NET Framework 2.0 for 64-bit Windows systems:*

<http://www.microsoft.com/downloads/details.aspx?familyid=B44A0000-ACF8-4FA1-AFFB-40E78D788B00&displaylang=en>

### 4 Activate your license of Spatial Audio Workstation

The Spatial Audio Workstation is protected with the eLicensor copy protection from Steinberg. A valid license on a connected USB eLicensor is required to use the Spatial Audio Workstation within Nuendo. It is possible to upload the Spatial Audio Workstation license to the same eLicensor used by Nuendo. Therefore, no additional USB device is needed.

In order to upload the license to the USB eLicensor, the latest version of Synchronsoft's "eLicensor Control" (eLC) needs to be installed on the PC running Nuendo. The installer for the Spatial Audio Workstation will do the update of the eLicensor Control Center automatically if required.

In order to put a license on the Nuendo USB eLicensor and activate it, start the eLicensor Control Center software. You need to be connected to the internet during the activation process. Click "Activate License" and enter the activation code provided by Barco. The license ("Spatial Audio Workstation 2") should be detected automatically. In the next step, select the eLicensor on which the license should be placed.

After the license is correctly downloaded and installed to the USB eLicensor you can start Nuendo and use the Spatial Audio Workstation plug-in. You can find more information on how to use the plug-in in the operation manual which you can find in the Windows start menu folder "Spatial Audio Workstation".

### 5 Known Issues

1. Please note that SAW is not working properly in Steinberg Nuendo 6.5, 7.0, 7.1.0 and 7.1.20.
2. To avoid performance problems with grouped objects, keep path playback visibility disabled, when recording motion automation to the parent's group.
3. There is a movement limit of +/- 50 m for sources at the stage. This limit can be exceeded or reduced by putting the source into a group and move/scale the group. This will be changed in a future version, where all sources are limited to the 50 m range.
4. The performance of motion path rendering and motion path editing can be low when editing large sections.
5. Automation outside 0..24h is ignored by the Spatial Audio Workstation.
6. Nuendo audio parts are currently not supported.
7. Gluing together event objects in Nuendo deletes the former object automation.
8. Motion automation from projects created with older versions of Spatial Audio Workstation is clipped to 50m at this time on import.
9. Currently, the track value as well as its read and write state are not connected to the related channel or group object in the Spatial Audio Workstation.
10. Selecting an automation track of a channel track does deselect the related channel object.
11. Nuendo automation fill modes are not connected to the Spatial Audio Workstation.
12. Redo creating or undo deleting an IOSONO track, that was previously set solo or mute, does wrongly switch the solo or mute state of the IOSONO mix bus and the main mix bus.
13. LC and RC channels are not used by upmix sources if "7.0 Cine" or "7.1 Cine" loudspeaker setups are used.
14. Windows 7 Program Compatibility Assistant (Programmkompatibilitätsassistent) shows warning message after installation. This warning can be ignored.
15. Crash when you delete an SAW group track in the Nuendo edit window and "undo" this action.
16. Setting colors for objects in Spatial Audio Workstation is not correctly reflected for the according tracks in Nuendo's arrangement view. You should always set colors in Nuendo's track settings. This will be reflected in SAW correctly.
17. Export of ICF files is only possible for projects in 48 kHz.
18. When using stereo tracks and Upmix objects a minimum buffer size of 1024 samples is required. Otherwise audio processing will cause spikes.

## 6 Change Log

### Version 2.3.5 Revision 17900:

Fixed a crash when changing x-y-z-Automation and auto motion path visible range  
Fixed a crash when the SAW bus was deleted by the user  
Fixed a crash when the SAW panner was inserted as FX  
Fixed a crash when switching between multiple open projects  
Fixed a problem with modal dialogs under Nuendo 7.1  
Fixed a problem with the display of a custom venue name when the name contains dots  
Fixed several problems with JL Cooper Joystick  
Added a error message to explain when another SAW is already running  
Merged all SAW licenses to a single SAW2 license  
Enlarged maximum zoom for usage on 4k screens

### Version 2.3.4 Revision 17777:

Fixed a crash when changing the vertical pan value in a group and using custom venues  
Fixed a crash that could happen when loading projects on high performance machines  
Fixed a crash when using keyframe mode  
Fixed wrong 480 sample automation data offset  
Fixed bypass latency  
Fixed "do not show this message again" for user messages related to custom venues  
Fixed problem when stage settings (Show speakers, etc.) were sometimes not stored  
Fixed a problem when embedded speaker files for custom venues could not be loaded  
Blacklisted Nuendo 6.5 and Nuendo 7.0 due to a faulty 64 channel bus  
Support for new JL Cooper Joysticks  
Renamed "Ceiling" zone into "Top" zone  
Increased performance of upmix processing  
Increased performance of motion path drawing  
Sources keep the layer when switching between channel and object mode  
Remembering last used path for export and custom venue and background image settings  
Lowered memory usage for IMF export and GUI motion path objects  
IMF is default export format now

### Version 2.3.3 Revision 17575:

Fixed zoom factor for 4k Monitor

### Version 2.3.1 Revision 17070:

Fixed problems with scene scaler handling:

- Multiple groups per layer
- Setups with speaker polygon intersecting audience
- Core release 3.3.3 required

### Version 2.3.0 Revision 17031:

Added IOSONO Core compatibility  
GUI redesign  
Added Nuendo 6 (32Bit) support  
Added Zone objects  
Added AUX flags  
Added vertical pan control via Joystick  
Reduced delay to a maximum of 250 ms  
Fixed a problem with losing height automation when using the Joystick

Fixed several problems with distance dependent feature and background image  
Fixed several problems with upmix  
Fixed a problem with round shaped custom venues

### **Version 2.2.2 Build 2359:**

Added feature project configurable background image  
Added feature distance dependent volume and EQ

### **Version 2.2.0 Build 2312:**

Added feature IMF Export  
Fixed problems sending OSC data after splitting channels  
Fixed problems loading some SAW 2.1.3 projects  
Fixed problems with ICF Export using Nuendo 5.5.4  
Fixed problem of muted tracks on external mix bus (conflicting panner ids)

### **Version 2.1.4 Build 1948:**

Fixed freeze while ICF Export of large projects

### **Version 2.1.3 Build 1947:**

Fixed crash when loading old projects in Nuendo 5.5

### **Version 2.1.2 Build 1939:**

Added support for JL Cooper MSC-Panner  
Added support of 3D coordinates for IPC processing (IOSONO IPC extension needed)  
Fixed ICF Export of projects using 32 bit audio  
Fixed bug: It is no longer possible to change automation of locked position parameters  
Fixed bug: Changing the settings for IPC processing is now updated instantly

### **Version 2.1.1 Build 1932:**

Fixed a problem that could inhibit the SAW project activation when using multiple projects  
Enabled IPC extension and ICF export for the Upmix feature (extra license necessary)  
SAW window can now also be hidden using the related menu entry in Nuendo or the associated keyboard short-cut  
Improved Upmix processing quality

### **Version 2.1.0 Build 1891:**

Disabled automatic bus and data creation for new projects until the project is activated in Spatial Audio Workstation  
Fixed a crash when starting Nuendo when no Spatial Audio Workstation license was found  
Fixed a crash that could happen when switching Spatial Audio Workstation toggle parameters like auto delay  
Fixed a crash that could happen when copying audio from mono to stereo tracks  
Fixed a problem where a mono object was created when adding a stereo track in an inactive project  
Fixed a problem that made it impossible to switch on or off bypassing the upmix of stereo objects  
Fixed clipping that could happen for upmixed objects  
Fixed a performance problem for upmix objects when working with small sound card buffer sizes  
Added default settings for the active bus arrangement of a Spatial Audio Workstation project  
Added support of instrument tracks

### **Version 2.0.0 Build 1668:**

Added the new Spatial Audio Workstation Upmix! for stereo audio tracks  
Fixed a crash when using Spatial Audio Workstation solo and mute  
Fixed a crash when active project was closed while the Spatial Audio Workstation project settings dialog was opened  
Fixed a crash when activating keyframe automation while still writing automation  
Fixed a crash in Spatial Audio Workstation when using the Nuendo cut tool while pressing the ALT key modifier  
Fixed a crash that could happen when using undo after several groups were dissolved  
Fixed a strange behavior when resetting a Spatial Audio Workstation controller to the initial state via CTRL and mouse click

### **Version 1.5.2 Build 1331:**

Fixed a crash that could happen on undo after deleting IOSONO groups  
Fixed a crash that could happen when writing a motion when the position was partially locked  
Fixed a crash that could happen when switching the source type of multiple selected objects  
Fixed a crash that could happen when closing the preferences dialog  
Fixed a problem that made it impossible to preview parameter changes when playback was stopped  
Fixed a problem that lead to wrong automation when exporting ICF files  
Fixed a problem when parameters like position were not saved when using mouse wheel or arrow keys  
Fixed a problem that a locked radius automation was changed when writing the angle  
Fixed a problem when SAW was displaying the wrong project settings for the current project  
Fixed a problem with wrong IPC100 channel ordering when using more than 50 channels

### **Version 1.5.1 Build 1304:**

Fixed a crash when disabling a write button while writing automation  
Fixed a crash when closing a project or Nuendo  
Added Spatial Audio Workstation external rendering mode and ICF export (license necessary) for Nuendo 5  
Fixed a performance problem when selecting objects  
Fixed a problem with wrong object positions when loading a project  
Fixed a problem when loading projects created with Spatial Audio Workstation versions 1.1.0, 1.0.0 and 0.9.0-beta4  
Fixed a problem when objects were wrongly repositioned after stop writing automation  
Fixed a problem when wrong automation was created when using the motion path edit mode  
Fixed a problem when wrong motion path segments were created at -50m  
Fixed a problem when a new Spatial Audio Workstation object was not selected together with the related audio event

### **Version 1.5.0 Build 1227:**

Added Nuendo 5 support (this version does not run with Nuendo 4)  
Fixed a crash when using undo while writing an automation  
Fixed a crash when using undo after changing the color of an object  
Fixed an error within ICF Export that used automatically scene scaling even when bypassed  
Write enable buttons in object editor now indicate when automation is currently written  
New icons for event objects  
Removed auto renaming of audio tracks using "channel" or "event" as prefix  
External rendering module uses one single 64 port bus now instead of multiple 10.2 busses  
Changed object data access for internal rendering, ICF export and audio mix down  
Spatial Audio Workstation now provides the fast non real-time mix down

### **Version 1.3.0 Build 925:**

Fixed a crash when Spatial Audio Workstation is closed while preferences dialog was still shown

Fixed a crash when deleting tracks

Fixed a crash when deleting many motion path edit control points

Fixed a crash when undo moving audio events while motion path fading was active

Fixed a crash when editing a motion path while still writing an automation

Fixed a bug that created wrong rotation automation when dismantling a group object

Fixed a bug with the solo and mute state in Spatial Audio Workstation for empty group objects

Fixed a bug where audio port settings were lost when switching the audio driver

Spatial Audio Workstation can now load projects created with previous Spatial Audio Workstation versions 1.1.0, 1.0.0 and 0.9.0-beta4

New modules available: External rendering (license necessary), ICF file export (license necessary)

New source object options for external rendering module: source type, on screen, dialog

Added prime latch automation mode and the related automation buttons

Added menu entry for operations manual into Help menu

Added Lock and Visible state to context menu of motion paths

Spatial Audio Workstation write enable buttons do now indicate when an automation is written

Spatial Audio Workstation stage view items are now indicating the read and write enable state of the position automation only

The playback state of Nuendo is now indicated via the Spatial Audio Workstation IOSONO logo

Added some tool tips

Moved some GUI elements

### **Version 1.1.0 Build 707:**

Initial version