IOSONO ONE

Installation And User Manual

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1. INTRODUCTION

1.1 About This Manual

About

This manual is subject to the copyright of Barco N.V. All exploitation, publication, reproduction or distribution in whole or in part is forbidden without the prior written permission of Barco N.V..

All rights created by patent grant or registration of a utility model or design patent are reserved. The manufacturer reserves the right to amend this manual at any time and without notice as result of technical progress.

This manual is applicable to the IOSONO ONE and the software components Play Config and Control Client.

Read through this manual thoroughly before using the IOSONO ONE in order to avoid mistakes and dangers, and to inform yourself about how to use the system safely.

2. SAFETY

About

Read this chapter thoroughly before attempting to install or operate the IOSONO ONE.

To prevent personal injury to users or physical damage to the IOSONO ONE while installing and using your IOSONO ONE, ensure that you understand and follow all safety guidelines, instructions and warnings included in this chapter and this manual.

2.1 General Considerations

About

The IOSONO ONE is designed for installation in control cabinets.

The IOSONO ONE is a high-performance audio processor used to control and configure an IOSONO sound system.

The IOSONO ONE and all associated components may only be used if they are in perfect, technical working order, and for their intended purpose, with safety in mind and an awareness of the dangers, and as stated in this manual.

The IOSONO ONE is operated via a graphic user interface. Reference is made to the currently valid guidelines for working with a visual display unit.

There are additional documents for other components of the sound system containing warning, safety and working instructions. These instructions must be observed independently of this manual.

2.2 Important safety instructions

About

The IOSONO ONEoffers an extremely high level of safety if used properly and in compliance with the instructions contained in this manual. Read and comply with the following safety instructions before operating the device. Retain safety and operating instructions for future reference. Adhere to all warnings on the device and in the operating instructions manual. Follow all instructions for operation and use.

Installation

The device may only be installed and operated by authorized, suitably qualified personal. More advanced configurations of the apparatus may only be made by skilled personnel with knowledge of sound technology.

Place the device on a flat, solid and stable surface or fix the device to an appropriate rack mounting system that can support the total weight of the device. If you use an unstable cart or stand, the device may fall, causing serious injury to a child or adult and serious damage to the device.

Modifications to the unit

Do not modify this equipment without authorization of the manufacturer. No serviceable parts inside.

Electric shock or fire hazard

To prevent electric shock or fire hazard, do not remove cover. Do not insert any objects through aperture in the casing.

Power connection and transient over voltage

- To avoid the risk of electric shock, this equipment must only be connected to supply mains with protective earth.
- The equipment should be installed near an easily accessible outlet.
- The equipment is intended for continuous operation.
- If the device is not used for long time, disconnect it from the AC inlet to avoid damage by transient over-voltage.
- To fully disengage the power to the device, please disconnect all power cords from the AC inlets.

Power cords

Please always use the power cords provided with the product. Furthermore, make sure that the used power cord always corresponds to the voltage of the power socket, is permitted to be used at your location and complies with the safety standards of your country. Do not overload wall outlets and extension cords as this may result in fire or electric shock.

Mains lead protection (U.S.: Power cord): Power cords should be routed so that they are not likely to be walked upon or pinched by items placed upon or against them, paying particular attention to cords at plugs and receptacles. The power supply cords should be replaced by the designated operator only at all times.

Water and moisture

Never expose the device to rain or moisture. Never use the device near water e.g. near a swimming pool.

Ventilation

Inadequate heat dissipation can lead to hardware faults and loss of data. Do not cover or block any ventilation openings in the side and back of the set. When installing the device in a cupboard or another closed location, heed the necessary space between the set and the sides of the cupboard. If necessary, consider additional external cooling, to ensure proper heat dissipation.

Material damage caused by electromagnetic fields

The apparatus contains parts sensitive to electromagnetic fields, like hard disc drives. Strong magnetic fields may lead to loss of data or harm the system functionality partly or persistently. Do not place the apparatus within the range of strong magnetic fields.

2.3 Warranty

About

The manual and the hardware and software components described have been produced according to the currently applicable state of the art. Nevertheless, the products described are continually being further developed so that we have to reserve the right to make changes to the form, equipment and technology of the scope of supply and the software components included.

Barco N.V. shall not be liable for any damage arising from the use of the documentation or the hardware and software components. No claims for changes to products already supplied can be asserted on the basis of the statements, illustrations and descriptions in this documentation.

Barco N.V. shall not accept any liability for consequences or damages arising from improper use of the device. Unauthorized modifications to the hardware or software configuration shall exclude liability for damage resulting therefrom.

3. HARDWARE

3.1 Front Panel

Front Panel
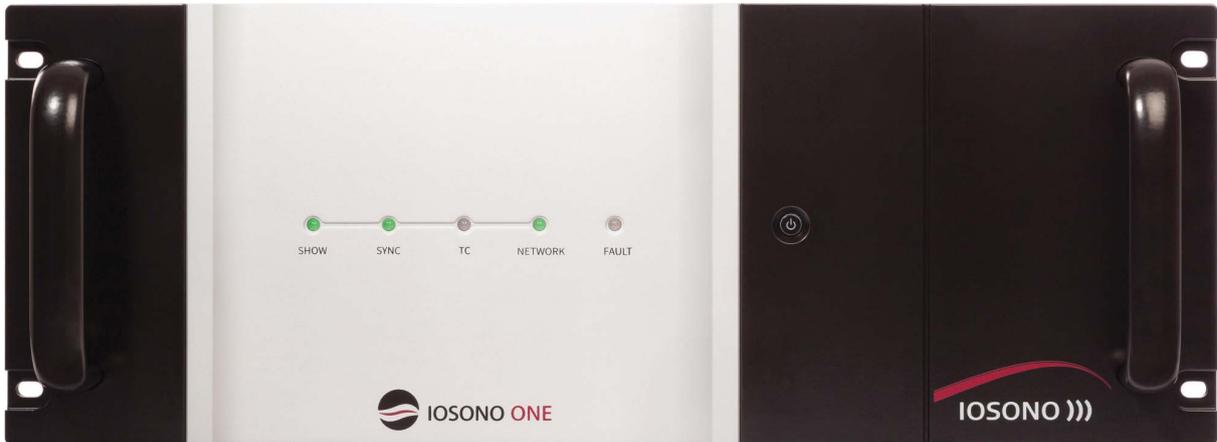
Image 3-1

The front panel contains the following elements:

- Power button with LED
- Status LEDs

The power button LED and the status LEDs show the current states of the IOSONO ONE. Find out what they stand for in the following lists.

Power Button LED	Meaning
Dark	Power off
Green blinking	Power on, device initialising
Green solid	Power on, device initialized, software running

Show LED	Meaning
Dark	No playlist cued
Green blinking	Playlist cued
Red blinking	Non existing playlist cued
Green solid	Show running (a clip is played back)

Sync LED	Meaning
Dark	No sync source detected
Red blinking	Sync source present, but not locked (e.g. worng sample rate)
Green solid	Sync source present, locked

TC (Timecode) LED	Meaning
Dark	CHASE mode off
Green blinking	CHASE mode on, no TC lock (e.g. when there is no incoming timecode)
Red blinking	CHASE mode on, TC not correct (e.g. frame rate missmatch)
Green solid	CHASE mode on, TC lock (TC valid, correct framerate)

Network LED	Meaning
Dark	No network connection

Network LED	Meaning
Orange blinking	Network command executed (Blinks once, then stays solid)
Orange solid	Network (cable) connected

Fault LED	Meaning
Dark	No error detected
Red blinking	System error detected, software not running
Red solid	Software error detected, software running, but in error state

3.2 Rear Panel

Rear Panel
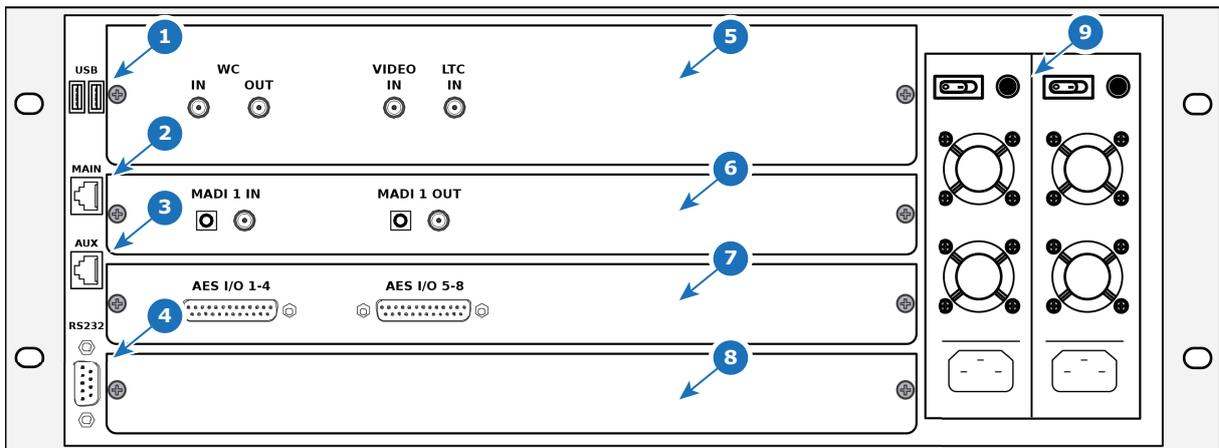
Image 3-2

Number and kind of audio drawers depends on IOSONO ONE configuration. For detailed information about connections and available hardware options see "Technical Specifications Of The IOSONO ONE", page 29.

Item No.	Element	Function
1	USB connection	Connection of USB storage devices for system backup and restore. Firmware update
2	MAIN ethernet port	Network connection to remote computer to control and setup the IOSONO ONE with the Control Client software
3	AUX ethernet port	Not Used
4	COM port	Media control
5	Sync drawer	Input and output of different sync signals
6	MADI drawer	Electrical and optical MADI input and output connections
7	AES drawer	Electrical AES inputs and output connections
8	Blind drawer	
9	Power supply	Power supply of the IOSONO ONE

4. CONTROL CLIENT SOFTWARE

About

The Control Client connects a remote computer to the IOSONO ONE. The Control Client Main Window allows access to the File Browser, the Factory Reset options and the Play Config software of the IOSONO ONE.

For installation details of the Control Client Software, please see the *Quick Start Guide* that has been delivered with the IOSONO ONE.

4.1 Connection To An IOSONO ONE

4.1.1 Connect the Control Client To An IOSONO ONE

To start the Control Client and connect to an IOSONO ONE

1. Set up a network connection between a remote computer and the IOSONO ONE (Port MAIN). Configure the remote computer's network interface to the same network as the IOSONO ONE.

   Static IP: 192.168.1.x (x being a number between 2 and 254). Network mask: 255.255.255.0

2. Start the *Control Client* via Windows-Startmenu/Programs/IOSONO/Spatial Audio Processor. At connection dialog enter the *IP Address* of the IOSONO ONE and select connect. (image 4-1)
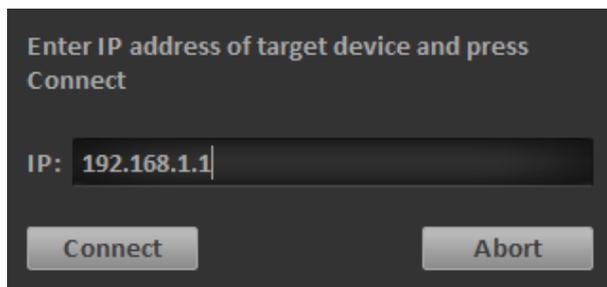
Image 4-1
Connecting dialog

4.1.2 Factory Network Settings Of The IOSONO ONE

Factory Network Settings

Item	Factory Settings
IP Adress	192.168.1.1
Subnet Mask	255.255.255.0
Gateway	0.0.0.0
DHCP	OFF

4.1.3 Connect To An IOSONO ONE With Unknown Network Settings

About

In case the network configuration of the IOSONO ONE is corrupt or unknown, it becomes necessary to reset the network interface configuration of the MAIN port of the IOSONO ONE, by doing the following:

To connect to an IOSONO ONE with unkown network settings

1. Connect an USB flash drive with a FAT file system to your remote computer

2. In the root file system of the USB flash drive, create a *.txt file and rename it to `iosono_network_reset.ion`

3. Type your desired network configuration in this file, e.g.:
   ```
   IPADDR 192.168.1.1
   NETMASK 255.255.255.0
   GATEWAY 0.0.0.0
   ```

4. Save the file

   Warning: *The used text editor has to be able to create a UNIX textfile. This is not possible with the Windows text editor. You can use for example the free available editor "Notepad++". In this editor you can use the menu entry **Edit EOL Conversion UNIX/OSX Format** to convert a text file to UNIX mode.*

5. Plug the USB flash drive in one of the USB connections at the backside of the IOSONO ONE

6. Turn on the IOSONO ONE, the network setting from the USB flash drive will be applied automatically during boot up. Connect to the new IP address with the Control Client software and remove the USB flash drive.

4.2 Control Client Main Window

Control Client Main Window

Image 4-2
Status display of the Control Client window

Item No.	Element	Function
1	System	Network address of the IOSONO ONE
2	Playback Information	Name and position of current audio clip
3	System Status	Current state indicators. Same as LEDs on the front panel, see "Front Panel", page 7
4	Output Levelmeter	Level indicators of the output channels
5	Configuration	Start Play Config software of the IOSONO ONE. See chapter 5 for detailed description
6	File Browser	Start file browser, see "File Browser", page 11
7	Factory Reset	Clear user data and restore factory configuration, see "Restore Backup", page 21

4.3 File Browser

About

Files can be transmitted from and to the Control Client using the File Browser. To enter the File Browser use the folder button in the lower right corner of the Control Client window. To copy files and folders from the remote computer to the IOSONO ONE, right click on the specific item and choose Upload. The four buttons in the top left corner can be used to filter for certain types of files.

> **Files are automatically transferred to dedicated folders on the internal hard drive according to the active filter. These folders are invisible to the user. There is no need for creating sub folders for clips, configurations, etc.**
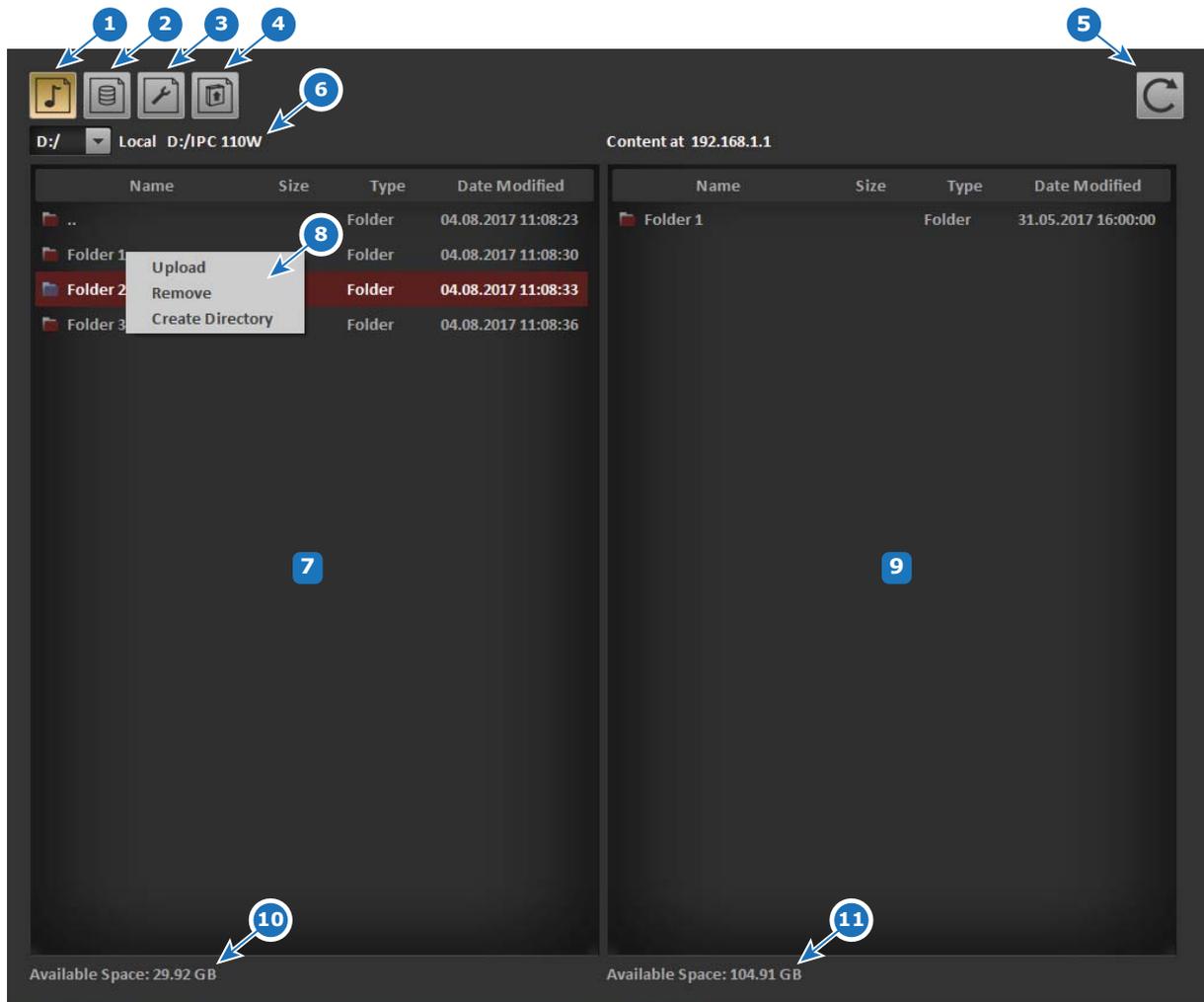
Image 4-3
File browser of the Control Client

Item No.	Element	Function
1	Content filter	Show only clip files (*.icf, *.imf)
2	Filter disabled	Show all files and folders
3	Config filter	Show only config files (*.icp, *.ilf, *.hid)
4	Update filter	Show only update files (*.isu, *.isu, *.CHK)
5	Refresh	Refreshs the file browser displays
6	Load drive and path	Select drive at local computer. Shows current path and Network address of local computer
7	Local computer file browser	Shows files and folders at local machine
8	Context menu	Context menu (right mouse button) of files or folders. Contains Upload, Remove and create directory com- mands
9	IOSONO ONE file browser	Shows files and folders at IOSONO ONE

Item No.	Element	Function
10	Local disx space	Shows free disc space of selected local drive
11	IOSONO ONE disc space	Shows free disc space of IOSONO ONE

4.4 Factory Reset

About

Clear (uploaded) user data and/or restore factory configuration using the arrow button in the lower right corner of the Control Client window (see "Control Client Main Window", page 10). Use the check boxes to select the reset options.
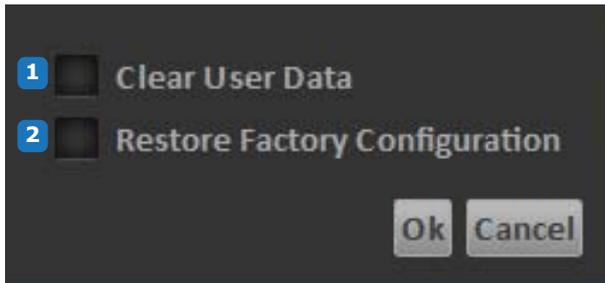
Image 4-4
Factory reset dialog

Item No.	Element	Function
1	Clear User Data	Deletes all user data, including audio files
2	Restore Factory Configuration	Restores all configuration settings

To prevent undesired use of the reset function a displayed number sequence has to be entered before the reset is executed.

WARNING: Factory reset deletes all configurations as well as all user content. Make sure you have relevant data stored on external storage media as a backup before attempting. The backup function is described in "Create Backup", page 22.

Reseting to factory configuration is useful when the IOSONO ONE is not working properly.

5. PLAY CONFIG SOFTWARE

5.1 Head Display And Navigation

Head Display And Navigation
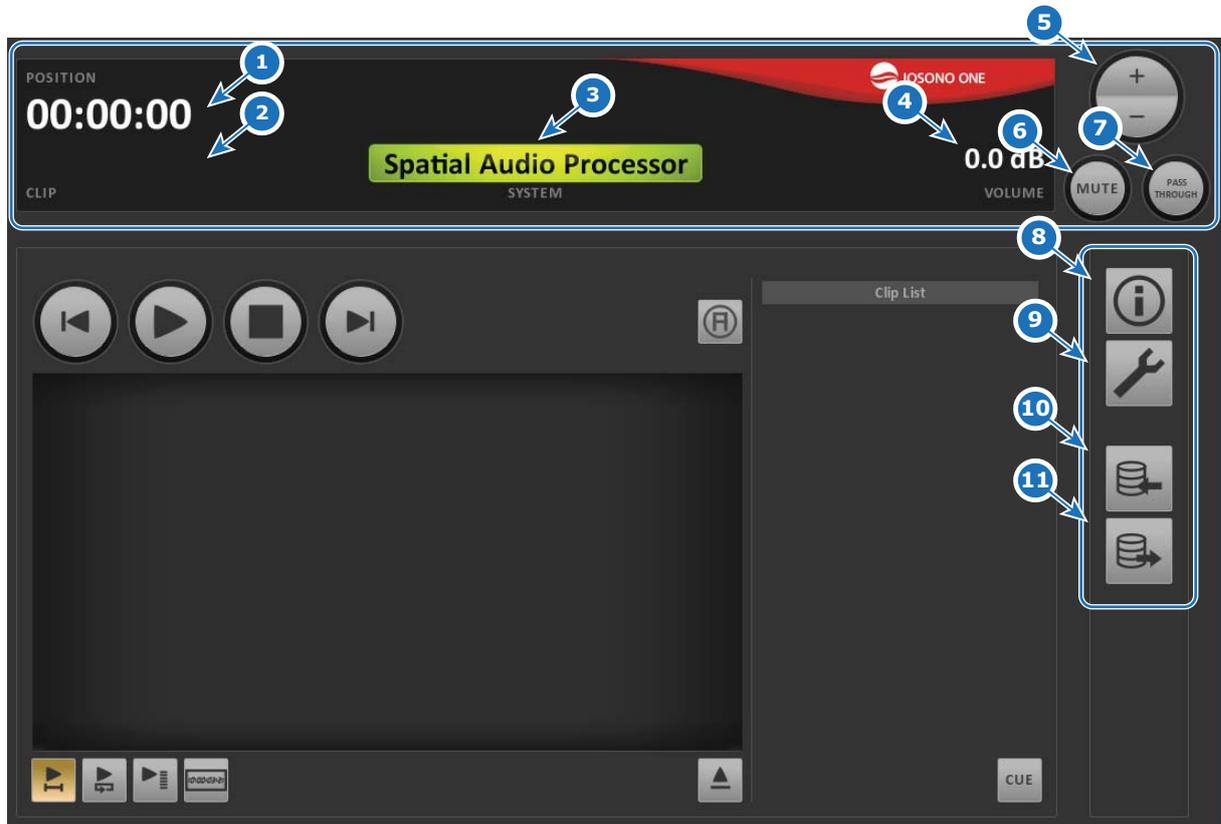
Image 5-1
Head display and Navigation Bar of the Play Config software

Item No.	Element	Function
1	Position	Timestamp of playback position of active clip
2	Clip	Name of active clip
3	System Name	System name. Background color indicates the the system state.
4	Volume	Indicates the current main volume setting
5	Volume + / -	Increase / decrease main volume
6	Mute	Mute / Unmute all output channels
7	Passthrough Mode	When enabled, all input channels will be routed directly to their corresponding output channels. Playback will be stopped. See "Passthrough Mode", page 27.
8	Status Page	Access the status page with information about Input / Output levels and Sync information. See "Status Page", page 15.
9	Setup Page	Access the setup page containing all system, audio and playback settings of the IOSONO ONE. See "Setup Page", page 15.
10	Restore Backup	Restore system backup. See "Restore Backup", page 21
11	Create Backup	Create system backup. See "Create Backup", page 22.

The Main Page is displayed when neither the Status-Page nor Setup-Page is selected at the Navigation Bar.

5.2 Main Page

Main Page

Image 5-2
Main page of Play Config

Item No.	Element	Function
1	Playlist	Displays content of current clip list
2	Back	Switches to previous clip within the playlist
3	Play	Starts the playback of the current clip. During playback the button changes to pause button
4	Stop	Stops the playback of the current clip and resets the position to the beginning of the clip
5	Next	Switches to next clip within the playlist
6	Single Mode	A cued clip is played to the end, then the playback is stopped
7	Loop Mode	At the end of a clip, the next clip starts. At the end of the show, the playback starts again at the first clip
8	List Mode	Consecutive playback of all clips in a cued show, at the end of a clip, the next clip starts. After the last clip, playback is stopped
9	Chase Mode	The show starts according to incoming timecode at the LTC In port. Go to Clip List tab (see "Clip Lists Tab", page 16) to set the start time and the frame rate of the incoming timecode **Note:** Check the status page ("Status Page", page 15) to check whether timecode is coming in and recognized correctly. Check green status LED and timestamp
10	Eject	Clears the currently cued clip list
11	Clip List	Table with the existing clip lists
12	Cue	Select a clip list and cue into the show

The Main Page is displayed when neither the Status-Page nor Setup-Page is selected at the Navigation Bar.

5.3 Status Page

About
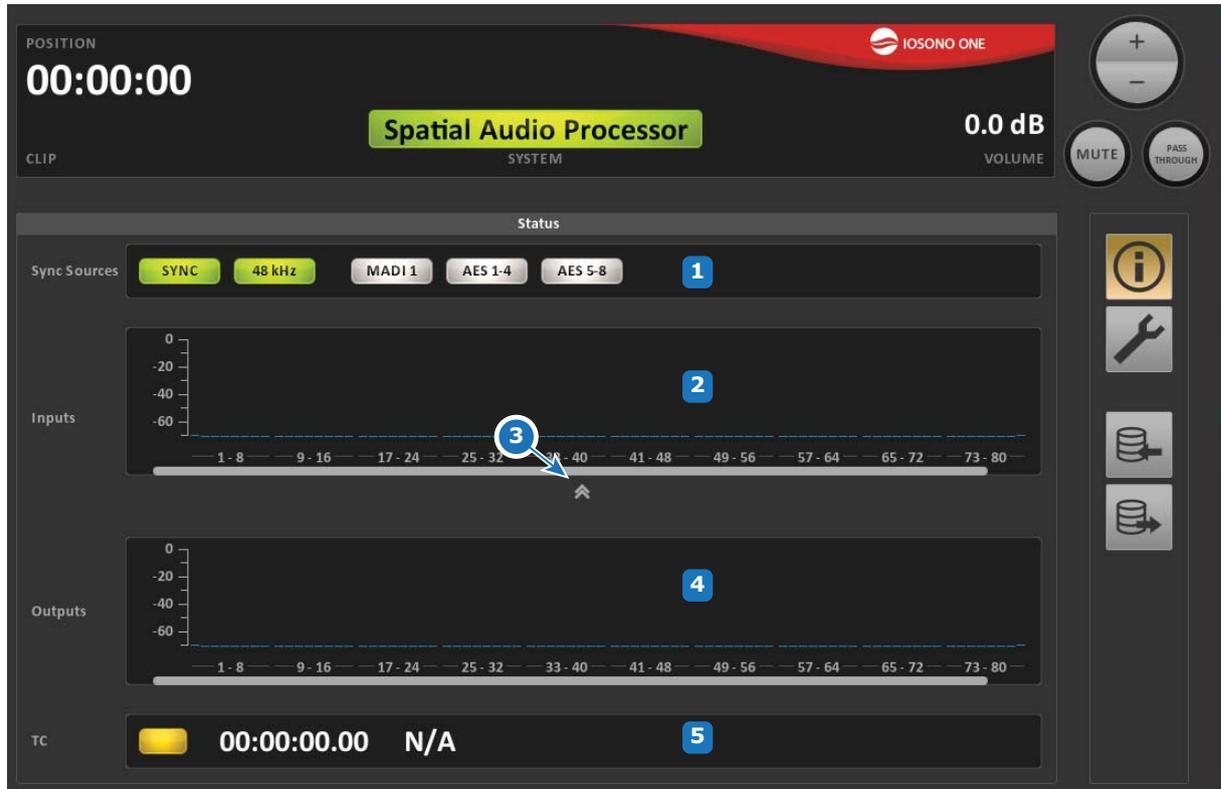
Image 5-3
Status page of Play Config

Item No.	Element	Function
1	Sync Sources	Shows current sync state and sample rate of the IOSONO ONE. Channel count and type of indicators depend on the hardware configuration of the used IOSONO ONE
2	Inputs level meters	Level meters for all audio inputs
3	Input expand	Expands / collapses the input level meters section
4	Output level meters	Level meters for all audio outputs
5	TC	Timecode status. Indicates the state of the incoming timecode, the current timecode position as well as the detected frame rate

5.4 Setup Page

About

Access the setup page with the wrench button. The setup page comprises four tabs with different functionality:

- *Clip Lists* Tab - For editing clip lists.
- *Audio* Tab - Allows the configuration of the clock source, sample rate, frame rate and controlling the noise sequence.
- *Network* Tab - Allows the configuration of network and remote control settings.
- *System* Tab - Displays various information about the system.

5.4.1 Clip Lists Tab

Clip Lists Tab
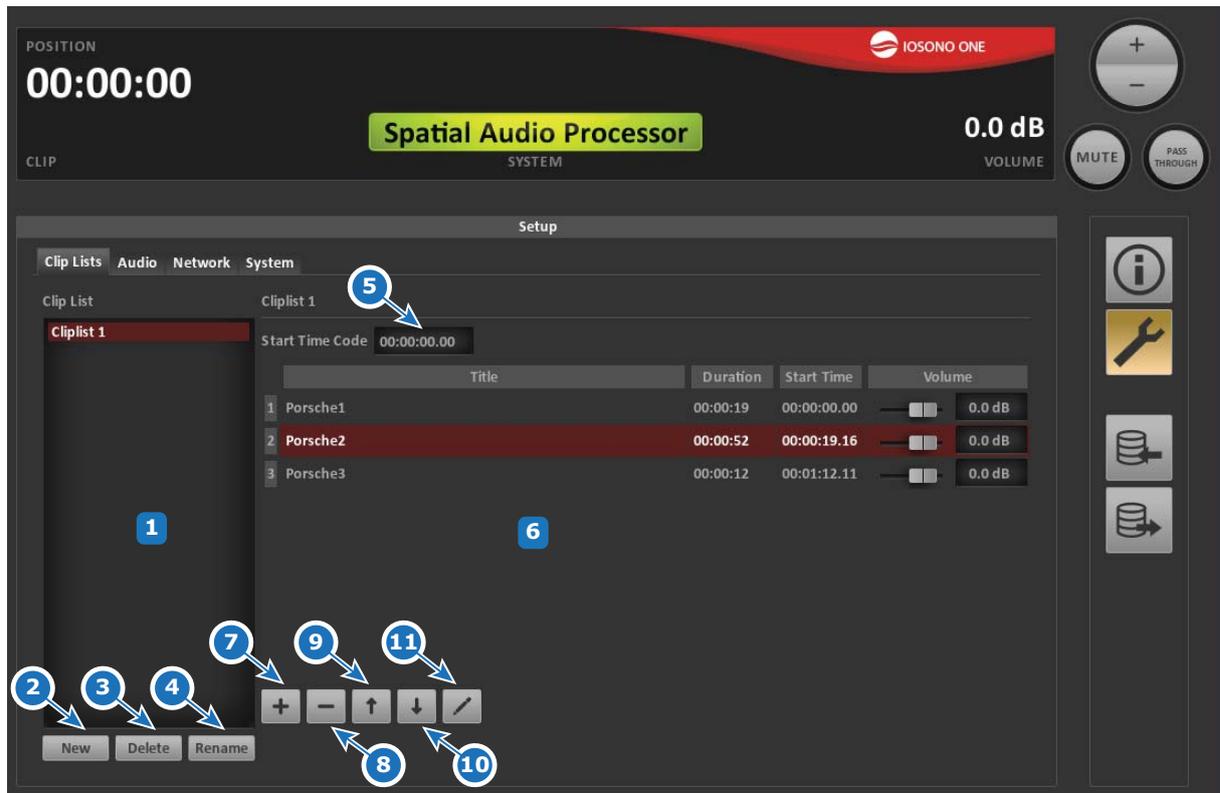
Image 5-4
Clip list tab in system setup of Play Config

Item No.	Element	Function
1	Clip lists	Overview and selection of available clip lists
2	New Clip list	Create a new, empty clip list
3	Delete Clip list	Delete selected clip list
4	Rename Clip list	Rename selected clip list
5	Start Timecode	Set the start timecode for the selected clip list
6	Clip list content	Shows all clips of the selected clip list with their length and start time. Volume of each clip can be set separately. More editing options are available at Item No. 11
7	Add clip	Add a new clip to the selected clip list **Note:** A clip can be added and played, once the clip file is stored on the IOSONO ONE (see "File Browser", page 11)
8	Remove Clip	Remove selected clip from the current clip list
9	Position Up	Moves selected clip one position up
10	Position Down	Moves selected clip one position down
11	Edit clip	Display detailed information about a selected clip. Different parameters can be eddited. See "Clip Lists Tab", page 16.

Edit Clip

To see details or to edit a selected clip, use the button *EDIT CLIP*. The Clip dialog opens an offers the following possibilities:
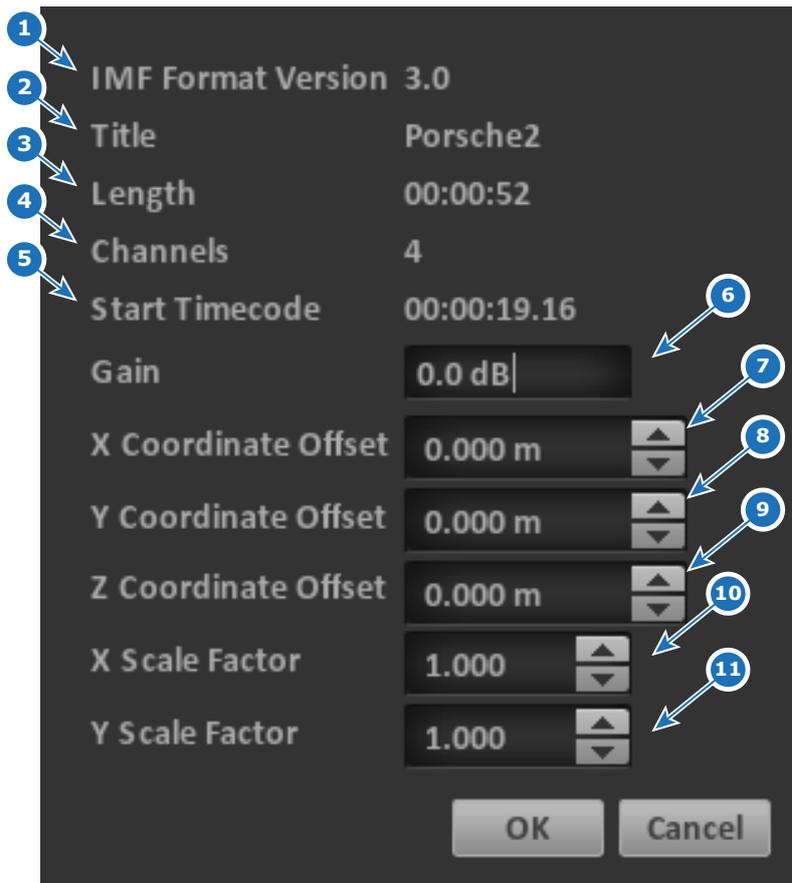
Image 5-5
Edit clip dialog

Item No.	Element	Function
1	Clip info	Format information of the selected clip
2	Title	Name of the selected clip
3	Length	Length of the selected clip
4	Channels	Number of sources of the selected clip
5	Start Timecode	Considering start time code of the clip list and duration of previous clips
6	Gain	Gain, same as in clip list
7	X Coordinate Offset	Offset of the object positions
8	Y Coordinate Offset	Offset of the object positions
9	Z Coordinate Offset	Scaling of the object positions
10	X Scale Factor	Scaling of the object positions
11	Y Scale Factor	Scaling of the object positions

5.4.2 Audio Tab

Audio Tab

Image 5-6
Audio tab in system setup of Play Config

Item No.	Element	Function
1	Synchronization	Set the audio clock source reference. When clock source is set to signal, the desired AES audio input channel can be selected
2	Sample Rate	Select sample rate in case of an AES audio configuration
3	Frame Rate	Select frame rate
4	Noise Sequence	Activate noise sequence and control output channels for test signal (see "Noise Sequence", page 24)
5	Monitor Out	Select output channel for monitor signal. Set to None if no monitor output is desired

> **While the noise sequence is activated, all other control elements except of the main volume controls are deactivated.**

5.4.3 Network Tab

Network Tab
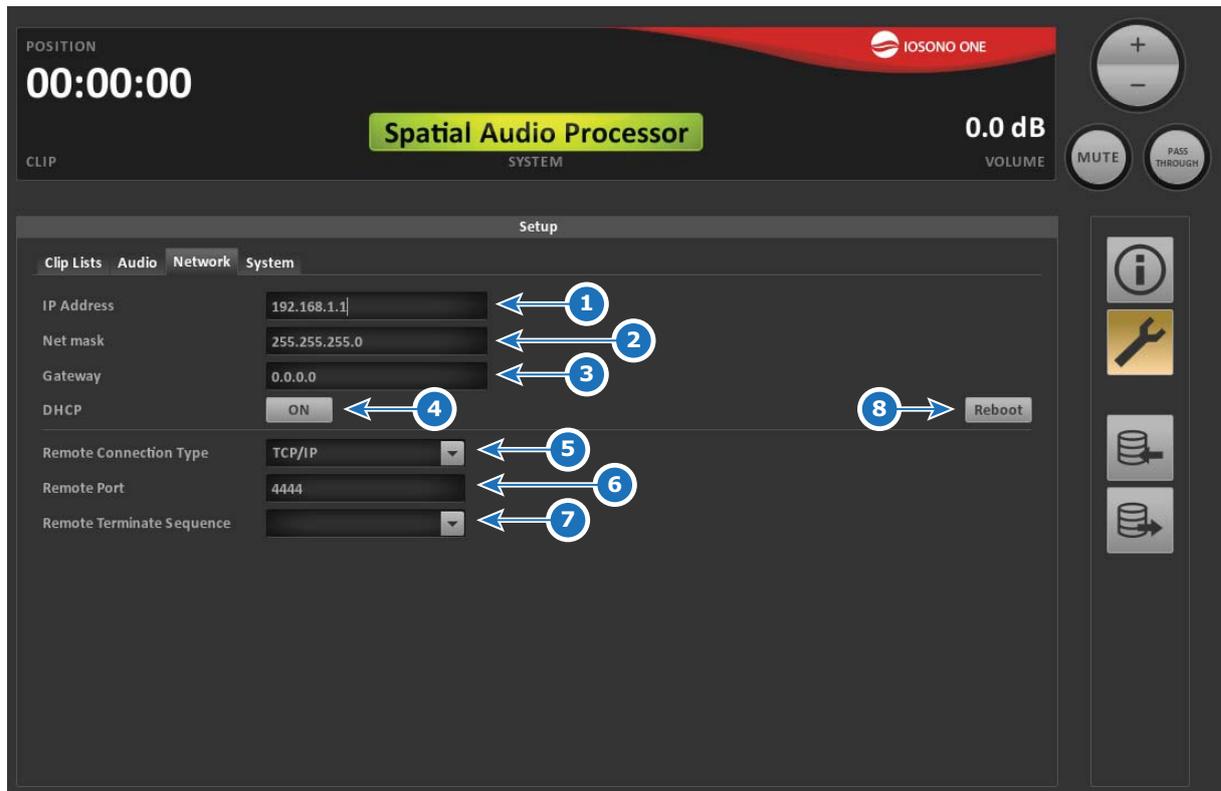
Image 5-7
Network tab in system setup of Play Config

Item No.	Element	Function
1	IP Address	IP Address of the IOSONO ONE. Factory setting is 192.168.1.1
2	Net Mask	Subnet Mask for the IP connection. Factory setting is 255.255.255.0
3	Gateway	Network Gateway for the IP connection Factory setting is 0.0.0.0
4	DHCP	Enables DHCP mode. Network settings will be adjusted automatically if a DHCP server is present at the network. Factory setting is OFF
5	Remote Connection Type	TCP/IP, UDP/IP and COM/RS232 possible
6	Remote Port	Selection of the remote port for IP remote connections
7	Remote Terminate Sequence	CR, LF or CR/LF possible
8	Reboot	Reboot the IOSONO ONE to resume network settings Note: Changes of the remote control setting don´t require a reboot.

A table of all remote control commands can be found in chapter "Remote control from external media controllers", page 26.

5.4.4 System Tab

System Tab

Image 5-8
System tab in system setup of Play Config

Item No.	Element	Function
1	System Name	Customizable name of the current IOSONO ONE system. The name will be display at the head display of the Play Config software to clearly identify a system if more units are used. See "Head Display And Navigation", page 13.
2	CORE Configuration	Load a system configuration, created with an IOSONO ONE into the IOSONO ONE. See "Load an IOSONO CORE configuration", page 23.
3	License	Load and Export a software license file.
4	System Software	Version information of the used IOSONO ONE system software.
5	Software	Software update. See "Software Update", page 23.

5.4.5 Restore Backup

Restore Backup
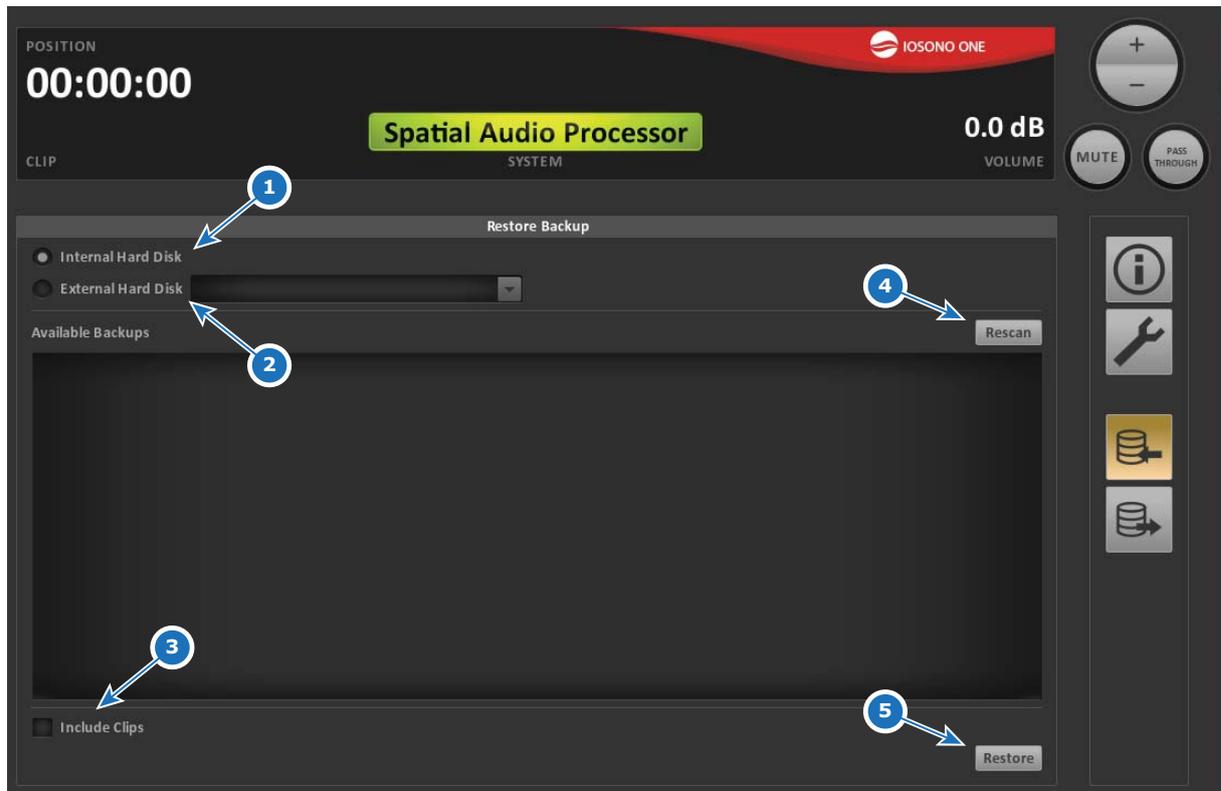
Image 5-9
Restore backup page of Play Config

Item No.	Element	Function
1	Internal Hard Disk	Search for backups to restore at IOSONO ONE internal hard disk
2	External Hard Disk	Search for backups to restore from a USB storage device connected to USB connector on the rear side of the IOSONO ONE
3	Include Clips	Includes the audio content (audio clips) from the backup
4	Rescan	Search for connected USB storage devices
5	Restore	Restore the selected backup

> ⚡ **WARNING:** The existing configuration will be replaced by the restored backup. All clips will also be replaced if *Include Clips* is activated

5.5 Create Backup

Create Backup
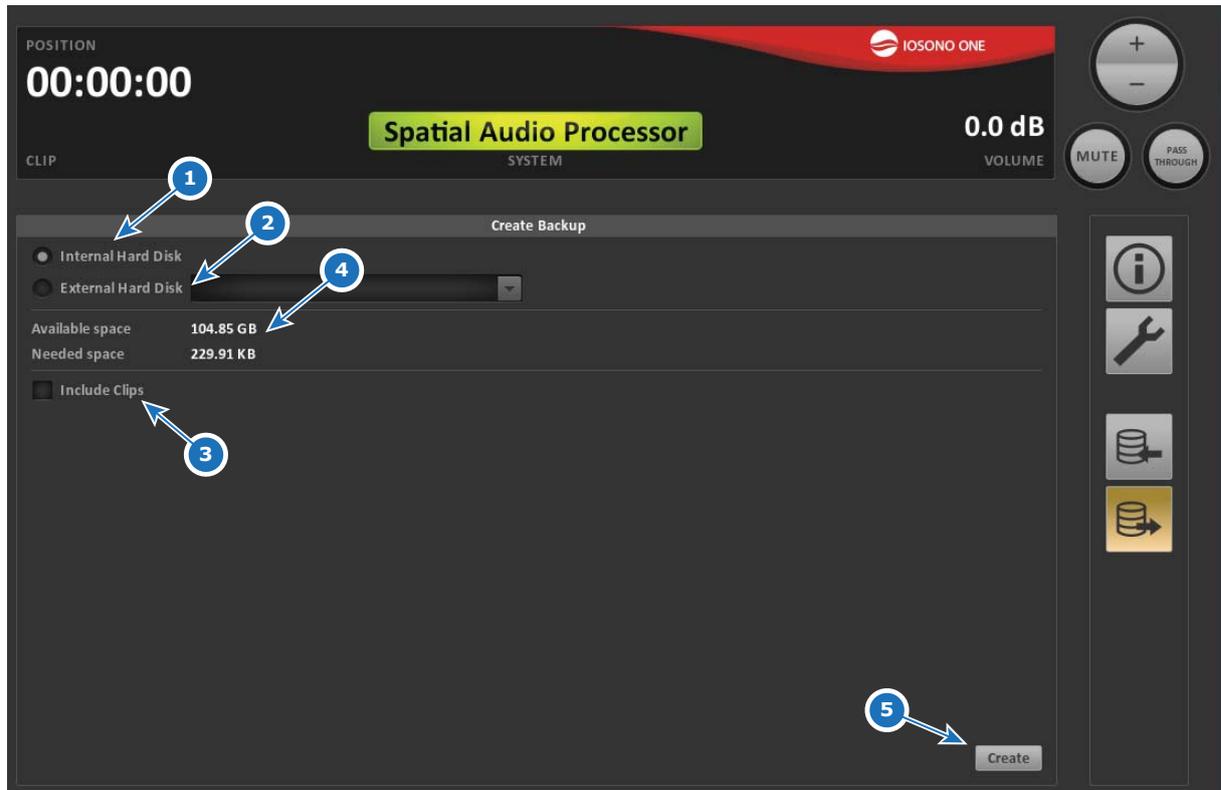
Image 5-10
Create backup page

Item No.	Element	Function
1	Internal Hard Disk	Save backup at the IOSONO ONE internal hard disk
2	External Hard Disk	Save backups to a USB storage device connected to USB connector at the backpanel of the IOSONO ONE
3	Disc space info	Shows Available space at the selected storage device and needed space for the backup
4	Include Clips	Includes the audio content (audio clips) to the backup
5	Create	Create the backup

Backups can also be restored on other IOSONO ONE with identical audio configurations.

6. USE CASES

6.1 Software Update

About

This section describes how to update the Play Config software running on the IOSONO ONE. Software updates are provided by Barco upon request. The software update function can be found at the **System** Tab of the setup menu, "System Tab", page 20.

To perform a software update

1. Start the **Control Client** an connect to the IOSONO ONE

2. Use file browser to copy software update files from your computer to the IOSONO ONE

3. Press the **Configuration** button in the **Control Client** to enter **Play Config**. Then press the wrench symbol and go to the **System** tab.

4. Press **Update** press **Choose**.

5. Select the desired update from the list showing available updates - press **Execute** wait until the update was applied and the IOSONO ONE is rebooted.

6.2 Load an IOSONO CORE configuration

About

Configurations can only be created using an IOSONO CORE. The result of exporting a preset in the Control Unit of the IOSONO CORE is a configuration file as required by the IOSONO ONE.

To load an IOSONO CORE configuration to the IOSONO ONE

1. Start the **Control Client** and connect to the IOSONO ONE (see "Control Client Main Window", page 10).

2. Use file browser to copy a valid configuration file (*.icp) and (if needed) a valid license file (*.ilf) from your computer to the IOSONO ONE (see "File Browser", page 11).

3. Press the **Configuration** button. When no license and/or no configuration is found, an error message is displayed and the software automatically switches to the **System** tab. Otherwise, continue with step 5.

4. Press **Load** - go to the **License** label - select the license file - restart.

5. Press the wrench symbol - go to the **System** Tab - press **Load** - go to **CORE Configuration** - press **...** at the top - select the *.icp file and press **Select -** press **OK**. (image 6-1)
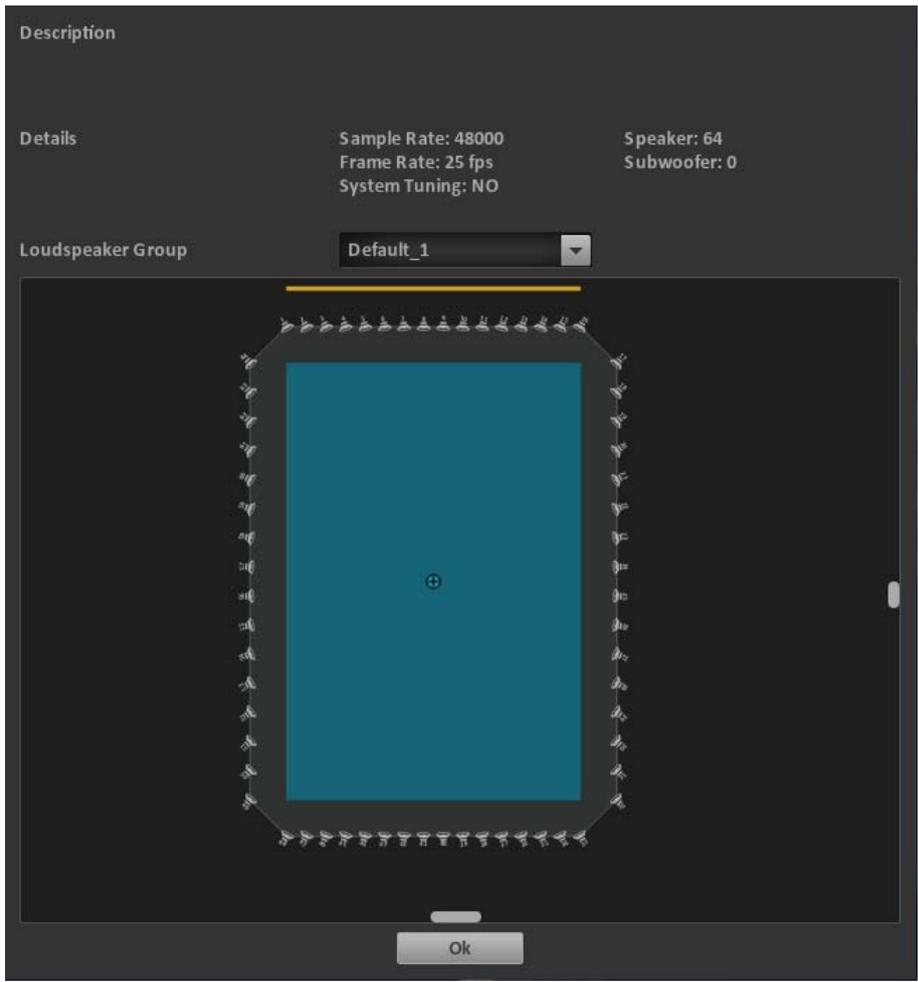
Image 6-1
Load IOSONO CORE configuration dialog

> **When the audio I/O of the IOSONO CORE that has been used to create the configuration is different from the IOSONO ONE used (e.g. IOSONO CORE-M vs. IOSONO ONE-A) the audio I/O gets automatically adapted to the IOSONO ONE.**

6.3 Noise Sequence

About

The IOSONO ONE provides individual pink noise to all audio outputs for testing the connected loudspeakers.
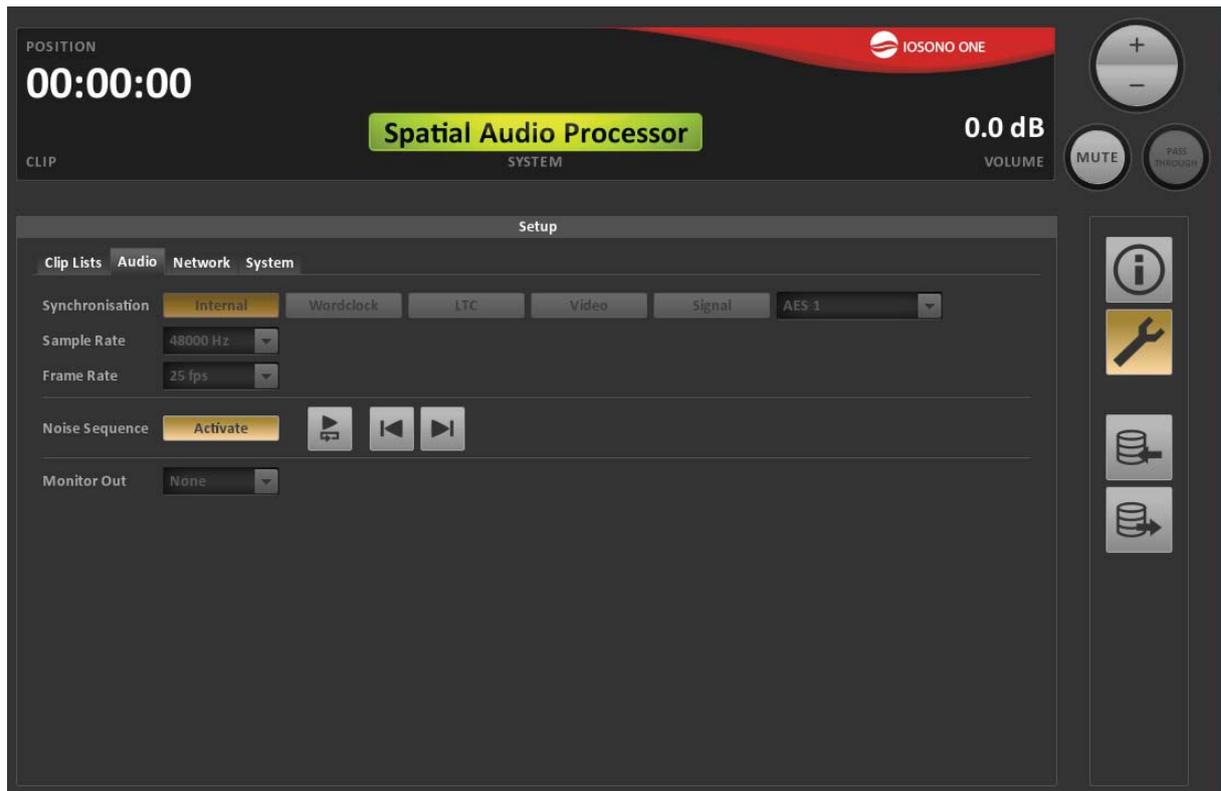
Image 6-2
Audio tab with active Noise sequence in Setup page of Play Config

To play back the noise sequence

1. Go to the *Audio* Tab on the setup page (wrench symbol).

2. Press *Activate* in *Noise Sequence* - the output level meters in the *Status page* (*i* symbol) indicate output level on a single channel. Connected loudspeakers should play back the noise signal accordingly.

3. Control the noise sequence with
   - *Activate -* for start and stop.
   - *Loop Playback* - button for an automated sequence to all speakers respectively.
   - *Forward* and *Backward* buttons to step through individual output channels.

> **While the noise sequence is activated, all other control elements except for the main volume controls are deactivated.**

6.4 Create And Play A Clip List

About

One of the main features of the IOSONO ONE is processing clip lists.

To create a clip list

1. Connect to the IOSONO ONE and enter *Play Config*

2. Go to the setup page (wrench symbol) and the *Clip Lists* tab

3. Press *New* to create a new clip list - rename it (per default Cliplist0)

4. Press **+** to add clips to the clip list

5. Deselect the *Setup* button to return to the main page

Play a clip list

1. Select a clip list - press the *Cue* button the clips of the selected clip list are shown in the show window

2. Press **Play** to start the playback
   Note: The name and the current position of the played clip are displayed in the head display

3. Press the **Pause** button to stop and resume the playback

4. Press the **Back** and **Next** buttons to select other clips for playback

5. Press the **Eject** button to clear the show window

6.5   Remote control from external media controllers

About

The Remote Control feature provides an interface, that enables third party programmable, external media controllers to control the IOSONO ONE via command lines over TCP/IP, TCP/UDP and COM/RS232 connections. How to change the Remote Control settings with the Play Config software is explained in "Network Tab", page 19.

Each command is terminated by a byte having the value 0x0D (which corresponds to ASCII's CR signal).

Command message: `<Command>0x0D`

Example: `PLAY0x0D`

Command message with data: `<Command><Whitepsace><Data>0x0D`

Example: `CUE Cliplist10x0D`

You can find a list of remote control commands In the following table:

Name	Arguments	Function	Comment
AUTOPLAY ON AUTOPLAY OFF		If activated, the next cued clip will follow the current playing clip, the transition is seamless	Playback will stop at clip end and select the next clip when deac- tivated, so play com- mand will then start next clip
BACK		ning of current clip	When stopped, back has no effect
CHASE ON CHASE OFF		Turns timecode synchronization on or off	Will stop playback, re- moves LOOP
CUE	Name: (Case sensitive) Name of a clip list	Sets the clip list to be played next, current played clip is pre- served, everything after this clip is removed and replaced by the cued clip list, clip lists consist of 1 or more clips	Name of the clip list is case sensitive
EJECT		Clears all cued clips	Will stop the playback
GOTO	Position: A timecide position string (e.g. 00:01:05:13)	Jumps to the given timecode po- sition within the clip list	Will not be executed when CHASE is ON
LOOPON LOOPOFF		When on, the playback will start with the first cued clip after the last was finished	Will not be executed when CHASE is ON
MUTEON MUTEOFF		Mutes and unmutes the audio output	
PAUSE		Pauses playback, position is pre- served	Will not be executed when CHASE is ON
PLAY		Starts playback when paused or stopped, jumps to next clip when playingnect	If no next clip exists, nothing happens
PRIOR		Sets playback position to begin- ning of prior clip	If the currently played clip is the first in the list, nothing will hap- pen
SETVOLUME		Sets main volume	
STATUS		Returns the status byte	
STOP		Stops playback, resets position to first cued clip	

6.6   Passthrough Mode

About

The IOSONO ONE has a passthrough mode that bypasses the processing and routes all audio inputs to their corresponding outputs, which is useful for system commissioning and content production using an IOSONO ONE. The passthrough mode can be activated by hitting the ***Passthrough*** button in the head display. While in passthrough mode, no other control elements are active.

> **You can test the passthrough mode by connecting any audio source to the audio inputs and check the output level meters in the Status page (i symbol), where the outputs show the same levels as the inputs.**

6.6.1   Content Creation

About

Dedicated IOSONO content for playback using an IOSONO ONE is created using an IOSONO Spatial Audio Workstation software running on a Nuendo DAW and an IOSONO CORE processor.

The audio outputs of the IOSONO CORE are routed into the IOSONO ONE, which then needs to be set to passthrough mode.

The content is produced with the Spatial Audio Workstation and an IOSONO CORE and exported to an interchangeable content file (*.icf or *.imf). Those content files can be uploaded to the IOSONO ONE using the Control Client software (see File Transfer in "File Browser", page 11).

6.6.2   System Tuning

System Tuning

The audio system's performance can be optimized by individualized FIR-filter created by the System Tuning extension running on the IOSONO CORE. During the required measurement process the audio outputs of the CORE are routed into the IOSONO ONE, which is then set to passthrough mode.

The result of the system tuning process is stored as filters in a configuration file (*.icp).

7. TECHNICAL SPECIFICATIONS

About

The information in this section is subject to change without notice. For current technical information, visit the product website or contact your sales support representative.

7.1 Technical Specifications Of The IOSONO ONE

Specification And Technical Data

Housing	19 in. / 4 RU
Power supply	Voltage / Frequency range: 100-240 VAC / 50-60 Hz
Monitoring	Information about relevant states via five multicolor leds
Volume control	Via remote control software
Remote control	Remote control software for Microsoft Windows provides control of all functionalities over standard TCP/IP network connection. Static IP and DHCP possible. Media control commands can be received via network and RS232.
Connectors	• USB: 2 x USB 2.0, Type A • Ethernet ports: 1 x Gigabit ethernet, RJ45 (Remote control) / 1 x Gigabit ethernet, RJ45 (Remote control) • RS232: 1 x Sub-D (DE-9M with UNC 4-40) • Wordclock input / output: 1 x BNC 75 ohm / 1 x BNC 75 ohm • Video sync input: 1 x BNC 75 ohm • Linear timecode (LTC) input: 1 x BNC ohm
Audio connectors	• MADI optical input / output: 1 x SC per 64 channels / 1 x SC per 64 channels • MADI electrical input / output: 1 x BNC 75 ohm per 64 channels / 1 x BNC 75 ohm per 64 channels • AES/EBU input / output:1 x Sub-D (DB-25F with UNC 4-40) per 8 mono input / output channels
Standard software	• 2D rendering for loudspeaker setups consisting of one single layer as well as 3D rendering for loudspeaker setups with multiple layers • Playback of object based IOSONO content from internal storage as well as streamed content from external devices. Synchronisation possible over LTC timecode input • Synchronization via audio input, wordclock input and video input • Rendering of 128 audio objects simultaneously to all available audio outputs with up to 24 bit / 48 kHz
Software options	Extended features: Processing at 96 kHz sample rate. Monitoring of all output channels using a mono output channel
Hardware configurations	• All configurations also available with redundant power supply • 64 MADI input / output mono channels • 16 AES input / output mono channels • 32 AES input / output mono channels
Dimensions (W x H x D)	485 x 178 x 615 mm / 19 x 7 x 24.2 inches Installation depth (without connectors): 555 mm (21.9 in.)
Weight	20 kg (44.1 lbs)
Certifications	D, CE, KC, CCC, UL, RCM

8. ENVIRONMENTAL INFORMATION

8.1 Disposal Infomation

Disposal Information

Waste Electrical and Electronic Equipment

This symbol on the product indicates that, under the European Directive 2012/19/EU governing waste from electrical and electronic equipment, this product must not be disposed of with other municipal waste. Please dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

For more information about recycling of this product, please contact your local city office or your municipal waste disposal service.

For details, please visit the Barco website at: http://www.barco.com/en/AboutBarco/weee

Disposal of batteries in the product

This product contains batteries covered by the Directive 2006/66/EC which must be collected and disposed of separately from municipal waste.

If the battery contains more than the specified values of lead (Pb), mercury (Hg) or cadmium (Cd), these chemical symbols will appear below the crossed-out wheeled bin symbol.

By participating in separate collection of batteries, you will help to ensure proper disposal and to prevent potential negative effects on the environment and human health.