

# **SOUNDSCAPE**

by BARIX

## SoundScape Player User Manual

Exstreamer SoundScape User Manual v1.0  
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## 1. Introduction

This document aims to present SoundScape Player users the basic functionality of the player device.

A SoundScape Player is a BARIX Exstreamer decoder device running a SoundScape Firmware version. Currently there are 2 types of BARIX Exstreamer players that can run the SoundScape firmware:

1. Exstreamer Store&Play
2. Exstreamer SoundScape

The main difference between these 2 devices is that the Exstreamer SoundScape includes a Display and a Keypad that allows users the ability to view and control the basic features of the player without the need to access its web user interface.

**Exstreamer Store&Play** devices come from factory with a Store&Play firmware pre-installed and need to be upgraded and converted to SoundScape with a special USB update method. Please contact your sales representative or go to [www.barix.com](http://www.barix.com) in order to find more information on how to perform this conversion.

**Exstreamer SoundScape** devices come with a SoundScape firmware version pre-installed from factory and can be used directly to connect to the SoundScape Portal. However we recommend updating always to the latest firmware version available before start using it in order to take advantage of the latest features and bug fixes.

All the information from this manual is valid for both devices except the one referring to the specific Display and Keypad functionality.

## 2. SoundScape Portal setup

SoundScape players are a component of the SoundScape system and are completely managed remotely from the SoundScape Portal. SoundScape players need to be registered in the SoundScape Portal in order to be used.

Users need to define in the SoundScape Portal all the Content Servers, Schedules with Playlists, Streams and Adverts as well as the Brands, Groups and the Locations that they belong before starting to use the players.

Please refer to the “SoundScape Portal User Manual” or contact your BARIX representative if you need assistance in setting up your SoundScape Portal account or configuration.

In this document, we assume that the SoundScape Portal is accessible for the user and its entire configuration has already been done.

### 3. SoundScape Player web User Interface

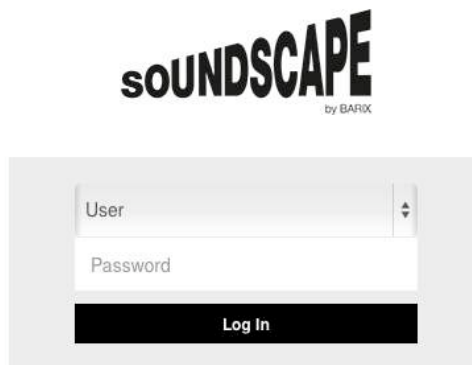
Please follow the instructions on the “Quick Install Guide” document included in the package of the Exstreamer SoundScape device to make sure all cabling and connections are set up correctly.

NOTE: Please remember to remove the plastic strip located next to the RS-232 connector in the back of the device to initiate the RTC battery of the device, which keeps track of the time reference in case it is not available from the network.

Once the device is powered and has a valid IP address (as announced by default on its audio outputs via SonicIP during start-up phase) the user can start using the web UI.

The web UI is the main interface to interact with a SoundScape player. Each device runs a web server that is accessible from any browser in the same network by simply typing the IP address of the device.

This is how the login page of the SoundScape Player looks like:



There are 2 types of users that can access the web UI of a SoundScape Player:

1. **User** (default password: **Ubarix**)
2. **Admin** (default password: **Abarix**)

Admins are allowed to make all configuration changes and actions and Users can be restricted with limited permissions for certain actions by Admins.

Access passwords for both types of users can be changed in the Security tab (see Security chapter for more information).

## 4. Home tab

The first tab that will open when accessing the web UI of a SoundScape player is the Home tab, with a PLAYER section displaying information about the status of the player and some basic commands that allow the user to change the Master Volume or skip Tracks from a Playlist.

This is the same information and actions that can be taken in Exstreamer SoundScape devices from its Display and Keypad (arrows Up/Down for the Master Volume and Left/Right for the Previous/Next).

The screenshot shows the SoundScape web UI. At the top right, there is an 'Admin' link. The navigation menu includes 'Home', 'Network', 'System', 'Files', 'Logs', 'Security', and 'Update'. The 'PLAYER' section displays 'Now Playing... Yellow - Coldplay' with playback controls: PREVIOUS, NEXT, VOL DOWN, and VOL UP. The 'TIME' section shows: Local Time (Timezone) Thu Oct 1 10:18:38 CEST 2015, NTP Server 193.239.220.29, and Uptime 5 days, 15 hours, 55 minutes, 33 seconds. The 'ACTIONS' section contains buttons for Reboot, Factory Defaults, and Export Home Text. On the right side, there is a table of player settings:

Volume	55%
Schedule	ID 356
Scheduled Item (Type)	ID 1506 (Playlist)
Next Track	Lonesome Town (Ricky Nelson)
Next Scheduled Item (Type)	ID 73861 (Track)
Brand	
Location	
Group	
Sub-Group	

The TIME section displays information about the **Local Time** of the Device (as defined in the Location to which the device has been assigned from the Portal), the **NTP Server** that is being used to synchronize with the time reference and the **Uptime** which is the time running since the last reboot.

On the right hand side of the screen there is some information about the current Master **Volume** being used as well as the current Schedule, Scheduled Item and next Scheduled Items.

NOTE: The Master Volume of the device needs to be set from the Portal's "Device Configuration Settings". The Master Volume set locally from the device will not be preserved after a restart of the application (or whenever a new configuration setting is sent from the Portal).

The ACTIONS section contains buttons that allow the user to "**Reboot**", reset to "**Factory Defaults**" and export a text file with the "**Export Home Text**".

NOTE: ACTIONS buttons can be restricted for Users by Admins in the Security tab.

## 5. Network tab

The Network tab provides the user information about the network configuration and status as well as information about the SoundScape Portal address to which the device is connected.

Admin

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Home Network System Files Logs Security Update

**NETWORK**

Protocol	DHCP
IP Address	192.168.2.34
Netmask	255.255.255.0
Gateway	192.168.2.2
Primary DNS	192.168.2.2
Alternative DNS	
DHCP Name	CHUR
Sonic IP	<input checked="" type="checkbox"/> Enabled

**SOUNDSCAPE PORTAL ▲**

SoundScape Portal IP/Name	<a href="http://soundscape.barix.com">http://soundscape.barix.com</a>
Use Portal as NTP Server	<input type="checkbox"/> Disabled
Last Successful Call-In	Thu Oct 01 04:31:22 EDT 2015

**ACTIONS ▲**

Submit	Cancel
Call-In Now	Export Network Text

In the NETWORK section it is possible (as an Admin) to change the **Protocol** to be used (DHCP by default or Static IP) and all the Network parameters: **IP Address**, **Netmask**, **Gateway**, **Primary** and **Alternative DNS** and **DHCP Name**.

The **Sonic IP** (enabled by default) announces the IP address acquired by the device at every start-up from the audio outputs to make it easier for the installer to find out the IP address of the device.

TIP: Discover Tool is an application from BARIX that can be used to detect SoundScape devices in the local network. It can be downloaded for free in the Downloads section of [www.barix.com](http://www.barix.com)

The SOUNDSCAPE PORTAL section allows the Admin user to redirect the device to the IP address or Name to which the device should be calling in. By default it is directed to the production SoundScape Portal <http://soundscape.barix.com>.

TIP: In order to use the device for a trial in the SoundScape DEMO Portal, this address has to be set to <http://soundscapedemo.barix.com>

Note that the colour of the SoundScape Portal Address will change according to its reachability (green meaning the device can reach the Portal).

In some private networks isolated from the Internet where NTP servers are located, it is possible to set the Portal itself to act as NTP server and be the time reference for the device. In this case, “**Use Portal as NTP Server**” has to be enabled.

The “**Last Successful Call-in**” will show a timestamp when the last successful connection to the Portal was established.

The ACTIONS section buttons allow the user to save changes with “**Submit**”, and to force an asynchronous call in to the Portal with the “**Call-In Now**” button.

Additionally, the user can save a text file with “**Export Network Text**”.

Exstreamer SoundScape users can make network configuration changes directly from the Keypad without having to access the web UI.

Press OK two times to enter the “Network” menu and navigate through the options to select which item needs to be edited. Use the Arrows Up/Down change the entries with an Alphanumeric sequence and save the changes with the OK button. Use Arrow left to discard changes or navigate to the previous menu.

## 6. System tab

This tab provides information about the Hardware and the Firmware of the Device.

In the HARDWARE section, users can read information of the device such as its **MAC Address**, the **Hardware Type**, the **IPAM Type** and some hardware options like **PoE** or **Amplifier**.

The MicroSD related information is also displayed in this section so the user can see the **usage** of the internal MicroSD card of the device, its **File System Type** and its **Status** (showing green when it's Read-Write, red if its Read-only).

Admin

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Home Network System Files Logs Security Update

### HARDWARE

MAC Address	00:08:E1:04:65:6C
Hardware Type	Exstreamer 100M DP (ID 2014.8085)
IPAM Type	IPAM 390 (ID 2012.0085)
PoE	Yes
Amplifier (Power)	No
MicroSD Used/Size	2.6 GB / 7.2 GB (36%)
MicroSD File System	ext4
MicroSD FS Status	Read-Write

### VERSIONS

Bootloader Version	U-Boot 2015.04-rc2 (Ar 20 2015 - 16:52:43)
Linux Kernel Version	Linux version 3.17.0 (jagdeesh@ford) (gcc version 4.6.1 (Sourcery CodeBench Lite 2011.09-70) ) #1 PREEMPT Wed Sep 23 09:28:51 CEST 2015
Root File System	built Fri Sep 25 17:34:59 CEST 2015
Application Version	0.75

### LICENCES ▲

Paging	<input type="checkbox"/> Disabled
Content Server	<input type="checkbox"/> Disabled

### ACTIONS ▲

Format MicroSD Export System Text

The VERSIONS section display all the information related to the OS and Kernel versions as well as the installed firmware **Application Version**.

The ACTIONS buttons allow the user to “**Format MicroSD**” to erase all of its content.

NOTE: Please be very careful when formatting the MicroSD since all of the Content (including the Tracks) will need to be re-downloaded from the Portal.

For Exstreamer SoundScape players, the formatting action can also be triggered from the Keypad in the Media menu (press OK to enter Menu, click 2x Arrow down to select “Media”, select it with OK and press OK again to “Format SD card”).



## 7. Files tab

The Files tab provides the user information about the files being stored in the internal MicroSD card of the SoundScape Player device.

For each sub-tab, the device shows the **File Name** with the ID number that is used in the Portal, the **Size** and the **last modified timestamp**.

Admin

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Home Network System **Files** Logs Security Update

**FILES**

configuration firmware **playlists** schedule streams tracks

File Name	Size	Month	Day	Time
Playlist_1349.plist	34B	Sep	16	17:16
Playlist_1363.plist	238B	Sep	16	17:16
Playlist_1364.plist	1.4KB	Sep	16	17:16
Playlist_1506.plist	1.1KB	Sep	16	17:16

**ACTIONS** ▲

Clone mSD to USB Clone USB to mSD

Export File List

The ACTIONS buttons can be used to clone all the content of a device to other new devices so that they don't have to download all the files from the Portal. This functionality is very useful for large installations in order to pre-load the devices before they are deployed to their Locations, saving lots of time and bandwidth.

### Pre-loading content on devices

In order to use the cloning functionality, please follow these steps:

1. From the Portal, deploy a Schedule that contains all the desired set of files (Playlists with all the Tracks, Streams, Adverts) to a single Device or Location.
2. Allow this device (the "golden" device) to download all the files from the Portal and wait for the download to finish.
3. Plug a blank USB stick with enough capacity to the "golden" device and click on the **"Clone mSD to USB"** button and wait for it to finish the copy.
4. Remove the USB from the "golden" device and plug it in the device that needs to be cloned.
5. Click the **"Clone USB to mSD"** button on the new device and wait for it to finish.
6. Repeat Step 5 for all devices that need to be cloned.

After all the Devices have been cloned and installed in the field, they will only receive updates to the base set of files that they already have in their internal storage but they won't have to download all the files again from the Portal.

For Exstreamer SoundScape users, the cloning functionality is also available from the Keypad, so it's not necessary to access the web UI of the device to trigger this action (devices don't even need to be connected to any network!).

In order to access this functionality, press OK to enter the menu, two times Arrow down to select the Media menu, OK again to enter the Media menu, one or two Arrow down presses to select the "Clone USB to SD" or "Clone SD to USB" options and OK again to confirm the action.

## 8. Logs tab

The Logs tab is displaying the internal logs of the application of the device. Its main purpose is to provide information to developers for troubleshooting of problems.

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Home Network System Files **Logs** Security Update

**LOGS**

All Errors Warnings Info

```
Oct 1 10:21:10 barix local7.info soundscape: RegistrationInfoMng: InfoGeneral:DeviceOnLine Report Track's received response: <Response> <Version>1</Version>
<MessageID>13411a</MessageID> <Method>ReportTrackPlays</Method> <Status> <Code>200</Code> <Description>
Oct 1 10:21:10 barix local7.info soundscape: PLAYER: Seek pos=0, whence=0
Oct 1 10:21:10 barix local7.info soundscape: PLAYER: Seek Size
Oct 1 10:21:10 barix local7.info soundscape: PLAYER: Seek pos=3243154, whence=0
Oct 1 10:21:10 barix local7.notice soundscape: FILEDB: Encrypted file read reached EOF: /media/mmc0p1/soundscape/current/tracks/Track_18002.audio
Oct 1 10:21:10 barix local7.info soundscape: PLAYER: Seek pos=0, whence=0
Oct 1 10:21:10 barix local7.info soundscape: PLAYER: Seek pos=0, whence=0
Oct 1 10:21:10 barix local7.info soundscape: PLAYER: Seek Size
Oct 1 10:21:10 barix local7.info soundscape: PLAYER: Audio input is initialize successfully: /media/mmc0p1/soundscape/current/tracks/Track_18002.audio
Oct 1 10:21:10 barix local7.info soundscape: PLAYER: MP3 codec type detected for /media/mmc0p1/soundscape/current/tracks/Track_18002.audio.
Oct 1 10:21:10 barix local7.warn soundscape: PLAYBACK: Sampling rate bit=16, channels=2, rate=44100
Oct 1 10:21:10 barix local7.info soundscape: PLAYBACK: id=2, Opened /media/mmc0p1/soundscape/current/tracks/Track_18002.audio with AVContext = 0x2fc320 and stream 0x21bdf0 ret
is 0
Oct 1 10:21:10 barix local7.info soundscape: CPCMOutput::DelnitWithDrain(): CPCMOutput::DelnitWithDrain() called.
Oct 1 10:21:10 barix local7.info soundscape: CPCMOutput::DelnitWithDrain() End.
Oct 1 10:21:10 barix local7.info soundscape: CPCMOutput::set_hwparams(): Setting samplerate to 44100...
Oct 1 10:21:10 barix local7.notice soundscape: PLAYBACK: audio source '/media/mmc0p1/soundscape/current/tracks/Track_18002.audio', song name 'Lonesome Town', album name 'Pulp
Fiction Collectors Editio' artist name 'Ricky Nelson'
Oct 1 10:21:10 barix local7.notice soundscape: PLAYBACK: Setting audio source to /media/mmc0p1/soundscape/current/tracks/Track_18002.audio is OK.
Oct 1 10:21:10 barix local7.info soundscape: CPlayer::OpenTrack(): -----> Track /media/mmc0p1/soundscape/current/Track_18002.mp3 successfully opened for playback.
Oct 1 10:21:10 barix local7.notice soundscape: PLAYBACK: id=2, state=Player_state_connecting, Track_18002.mp3 :start.
Oct 1 10:21:10 barix local7.info soundscape: CPlayer::LoadPlaybackInfo() song name to be displayed: [Track_18002.mp3]
Oct 1 10:21:10 barix local7.info soundscape: CPlaylistFileMap::GetNext(): Get next music file name only
Oct 1 10:21:10 barix local7.info soundscape: CPlaylistFileMap::GetNext(): returns Track_16950.mp3
```

**ACTIONS** ▲

Export Logs Refresh Logs

Latest Entries Export Core Dump File

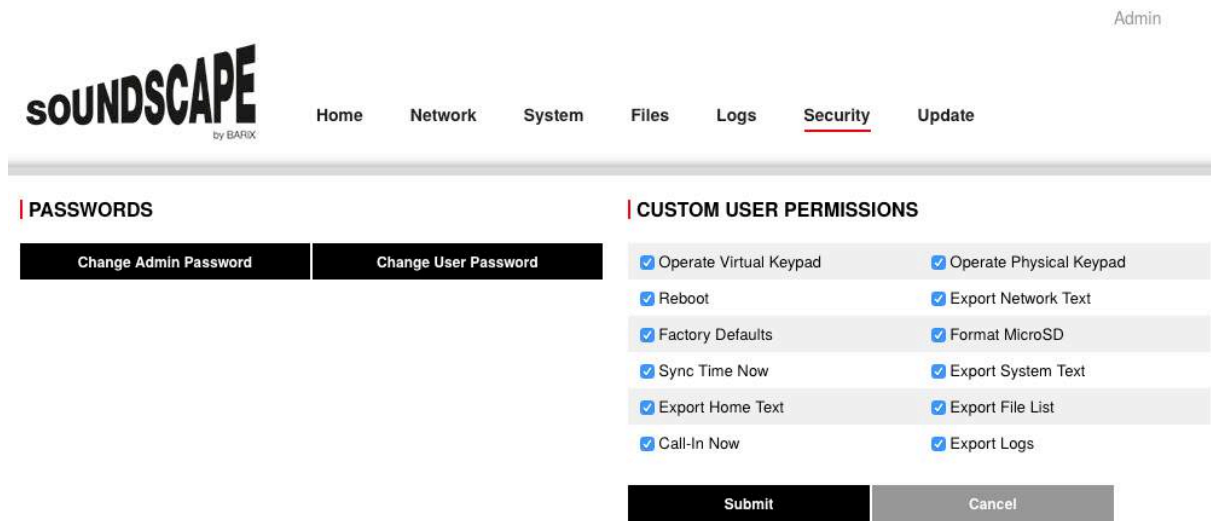
The Logs can be filtered depending on the category “All”, “Errors”, “Warnings” and “Info” by clicking on the sub-tab

The ACTIONS buttons allow the user to “Export Logs” and to “Export Core Dump File” to send the logs to developers for their analysis.

The “Refresh Logs” button updates the view with the latest logs (that appear at the end of the page) and the “Latest Entries” button brings the user to the end of the page without having to manually scroll down.

## 8. Security tab

This tab allows the user to change passwords and allow Admins to set permissions to normal Users.



In order to change a web UI password, Admins can click on “Change Admin Password” or “Change User Password”:

The screenshot shows a modal dialog box titled 'Change Admin Password'. It contains three input fields: 'Old Password', 'New Password', and 'Confirm New Password'. At the bottom of the dialog are 'Submit' and 'Cancel' buttons.

Admins have to type the old password and 2 times the new password before submitting the change.

The CUSTOMER USER PERMISSIONS lists all the actions and action buttons that will be available for a normal User of the web UI.

NOTE: For Exstreamer SoundScape users it is possible to disable the operation of the Physical Keypad to avoid undesired manipulation of the device in the deployed Location.

## 9. Update tab

The Update tab allows users to update devices via web UI and to change the web UI Language (and add new languages!).

Admin

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Home Network System Files Logs Security Update

### VERSIONS

Bootloader Version	U-Boot 2015.04-rc2 (Ar 20 2015 - 16:52:43)
Linux Kernel Version	Linux version 3.17.0 (jagdeesh@ford) (gcc version 4.6.1 (Sourcery CodeBench Lite 2011.09-70) ) #1 PREEMPT Wed Sep 23 09:28:51 CEST 2015
Root File System	built Fri Sep 25 17:34:59 CEST 2015
Application Version	0.75

Update

### LANGUAGES

Web UI Language: English

Add Language: English

In order to update the firmware version of the SoundScape application please read the “SoundScape Update Readme.pdf” file that comes with the zipped file containing the update PKG and other necessary files. This can be downloaded from [www.barix.com](http://www.barix.com) Downloads section as a registered user.

The LANGUAGES section of this page allows the user to select the “Web UI Language” and to “**Export Resource File**” to translate and upload it again to the device with the Add Language “**Browse**” button.

## 10. Legal Information

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