Decler

PLAYER ZERO

AUDIO PLAYER Local and Streaming Audio Player



USER MANUAL

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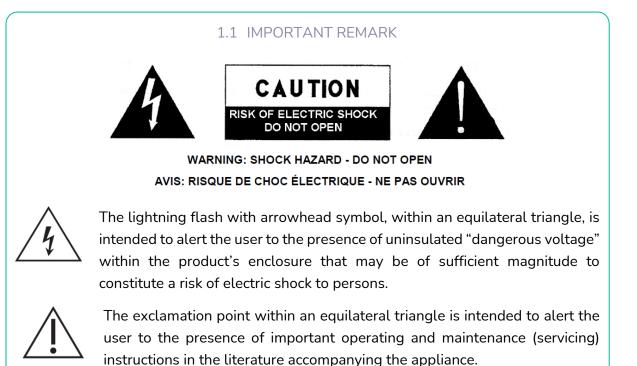
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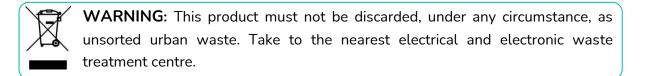
1. PRECAUTIONS



WARNING (If applicable): The terminals marked with symbol of "Ź" may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the use of ready-made leads or cords.

WARNING: To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

WARNING: A device with Class I construction shall be connected to a mains socketoutlet with a protective earthing connection.



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. T.O.C

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1.2 IMPORTANT SAFETY INSTRUCTIONS

- **1.** Read these instructions.
- **2.** Keep these instructions.
- 3. Heed all warnings.
- **4.** Follow all instructions.
- 5. Do not use this device near water.
- 6. Clean only with dry cloth.
- **7.** Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other device (including amplifiers) that produce heat.
- **9.** Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- **10.** Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the device.
- **11.** Only use attachments/accessories specified by the manufacturer.

- **12.** Unplug the device during lightening sorts or when unused for long periods of time.
- **13.** Refer all servicing to qualified personnel. Servicing is required when the device has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the device, the device has been exposed to rain or moisture, does not operate normally, or has been dropped.
- **14.** Disconnecting from mains: When switching off the POWER switch, all the functions and light indicators of the unit will be stopped, but fully disconnecting the device from mains is done by unplugging the power cable from the mains input socket. For this reason, it always shall remain easily accessible.
- **15.** Equipment is connected to a socketoutlet with earthing connection by means of a power cord.
- **16.** The marking information is located at the bottom of the unit.
- **17.** The device shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on device.

1.3 CLEANING

Clean the unit with a soft, dry clean cloth or slightly wet with water and neutral liquid soap only, then dry it with a clean cloth. Be careful that water never gets into the unit through any hole. Never use alcohol, benzine, solvents or abrasive substances to clean this unit.

NEEC AUDIO BARCELONA, S.L. accepts no liability for any damage that may be caused to people, animal, or objects due to failure to comply with the warnings above.

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Thank you for choosing our device Ecler PLAYER ZERO! We appreciate your trust.

It is **VERY IMPORTANT** to carefully read this manual and to fully understand its contents before any connection in order to maximize your use and get the best performance from this equipment.

To ensure optimal operation of this device, we strongly recommend that its maintenance be carried out by our authorised Technical Services.

Ecler PLAYER ZERTO comes with a 3-year warranty.

2. FEATURES

PLAYER ZERO is a compact stereo audio player able to play music content from local storage devices (USB/MICRO SD), Internet streaming services (online radios, etc.) and digital media exchange (DLNA, AirPlay) with the following main features.

2.1 MAIN FEATURES

- 1 unbalanced stereo audio output, RCA connector and mini-jack (with stereo/mono selection).
- Compatible with mp3, ogg, WAV, AIFF and FLAC audio formats.
- One USB port and one MICRO SD card slot for access to local media content.
- Ethernet interface with RJ45 connector for communication with web setup application as well as Internet streaming reception.
- Wi-Fi interface (client or master mode) for communication with web application configuration as well as Internet streaming reception.
- Fully configurable through web application (point-to-point or through the same LAN)
- 2 GPI (General Purpose Inputs) ports, to trigger the 2 available events.
- Silence detection event.
- Internal clock with up to 240h autonomy (without AC adapter) and automatic synchronization with NTP services.
- **Modular firmware**: PLAYER ZERO has a firmware with modular services that allow each user to personalize its operation and adapt it to the size of his project or to his business model. The firmware includes, among other functions and services:
 - Calendar event triggering



- Synchronization of cloud content (Cloud Disk Sync): Store & Forward (rsync).
- Execution of scripts (user-written instruction files in lua language www.lua.org).
- Local file encryption (USB/MICRO SD).
- Activity Log.

PLAYER ZERO programming is done through the web application embedded in the unit. Refer to the <u>PLAYER ONE & PLAYER ZERO web GUI</u> application manual for more information.

3. INSTALL & CONNECT

3.1 LOCATION, SET UP AND VENTILATION

The PLAYER ZERO has been **specially designed to be used both as a desktop player and a 19" rackmount unit**, occupying third a rack space (with <u>VEO-RACK19</u>, optional mounting kit for standard rack cabinets).

In professional installations, it **should preferably be placed in the same rack as the audio sources**.

Since its power consumption is very low, forced ventilation is not necessary. However, avoid exposing the device to extreme temperature and the environment in which it is placed should be as dry and clean (no dust) as possible.

3.2 AC CONNECTION AND POWERING ON

PLAYER ZERO is powered by alternating current (AC) through its external power supply: 100-240 VAC, 50-60 Hz. This external power supply has several interchangeable connectors: American, European, British and Chinese.

The operating environment should be dry and be totally free of dust. Do not expose the unit to dripping or splashing. Do not place incandescent objects like candles on top of it.

If the unit requires any intervention and/or connection/disconnection, it must be powered off first. There are no user-serviceable parts within the unit. To avoid buzzing, do not allow the power cable to intertwine with audio shielded cables.

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3.3 AUDIO OUTPUT CONNECTIONS

PLAYER ZERO has 1 unbalanced stereo output on its rear panel.

The signal output connectors are $2 \times RCA$ and $1 \times stereo$ mini-jack.

3.4 ETHERNET PORT FOR CONFIGURATION AND INTERNET CONNECTION

An RJ-45 connector allows the unit to be connected to an Ethernet network or even directly (point-to-point) to a computer.

This connection provides access to Internet contents, and to the configuration of the unit using a web browser on the computer, which points to the IP address of the PLAYER ZERO, showing the web application embedded in the unit. Refer to the <u>PLAYER ONE & PLAYER</u> <u>ZERO web GUI application</u> manual for more information.

3.5 WI-FI INTERFACE FOR CONFIGURATION AND INTERNET CONNECTION

A Wi-Fi interface allows the unit to be connected to a Wi-Fi network or even directly (point-to-point) to a computer by Wi-Fi.

This connection provides access to Internet contents, and to the configuration of the unit using a web browser on the computer, which points to the IP address of the PLAYER ZERO, showing the web application embedded in the unit. Refer to the <u>PLAYER ONE & PLAYER</u> <u>ZERO web GUI application</u> manual for more information.

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3.6 GPI REMOTE CONTROL PORTS

PLAYER ZERO has 2 GPI control inputs on its rear panel. These inputs can be connected to an external physical device (e.g. a contact closure) and associated with an PLAYER ZERO function:

- Load and play previously configured audio content
- Preset recall
- Audio playback with priority over the music program
- Transport bar control (PLAY/PAUSE, STOP, etc.)
- Internal triggering, to interact with other player services (scripts for example)

GPI connectors use 3-position screw terminal blocks (Euroblocks). The wiring is as follows:

GPI terminal	>	– 1, 2 terminals
Ground	>	\perp terminal

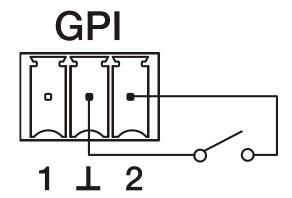


Figure 1: Connection example of GPI 2

Connecting cables can be up to 500 meters long with a minimum section of 0,5 mm².

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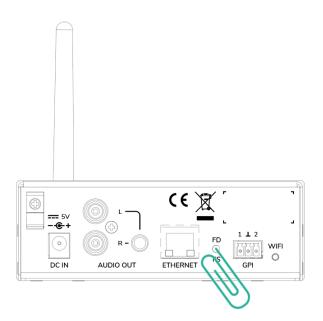
4. START-UP and OPERATION

Ecler recommends **configuring PLAYER ZERO with your web application to enjoy its full functionality**. Please refer to the <u>PLAYER ONE & PLAYER ZERO web GUI application</u> <u>manual</u> to know all the functionality it offers.

Plug the power cord into the back of the device to turn it on.

4.1 RESTORE DEFAULT / FIRMWARE UPDATE

PLAYER ZERO has two functionalities that can be be done via the FD/FS button on the rear panel:



- **Restore Factory Defaults:** Restore factory settings. Press and hold the FD/FS button on the rear panel for 10 seconds with a small pin or paper clip while the unit is powered on.
- Fail Safe (Restore firmware): Install the latest firmware published on the Ecler website or a firmware file hosted on one of the local storage systems (USB/MICRO SD).

While the unit is unplugged, press and hold the FD/FS button with a small pin or paper clip and then plug in the unit. The front LEDs will start flashing rapidly for 3 seconds (at this point the FD/FS button can be released).

To restore the latest released firmware, it is necessary to connect the device to a DHCP server with Internet access, to download the firmware.

If this action is not performed correctly, you may lose all device settings and parameters. Be sure to save a backup copy of the device settings before executing this action. T.O.C.

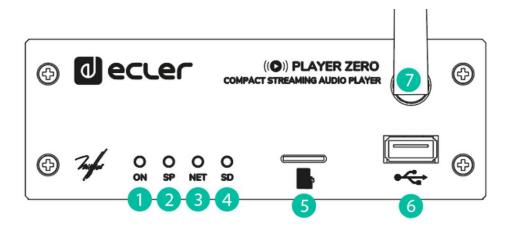
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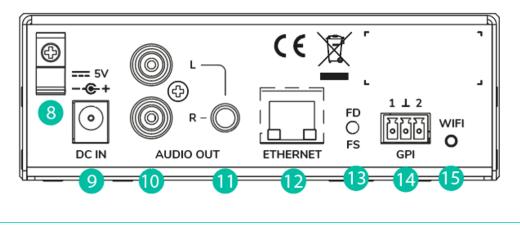
5. PANEL FUNCTIONS

5.1 FRONT PANEL



- **1. ON LED**: power indicator.
- 2. SP LED: signal present indicator.
- **3. NET LED**: network traffic indicator.
- **4. SD LED**: Micro SD source operation indicator.
- MICRO SD/MICRO SDHC slot: for local audio content playback. Up to 2TB. FAT16/32 format.
- USB 2.0 port: for local audio content playback. Up to 2TB. FAT16/32 and NTFS format.
- 7. WiFi Antenna.

5.2 REAR PANEL



- 8. Security flange for power supply cable
- 9. External power supply connector
- **10.** 2 x RCA stereo output

- 11. Stereo mini-jack output
- 12. RJ-45 connector
- **13.** Factory Default / Fail Safe button
- 14. GPI Port
- 15. Indicator Light, WIFI

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6. TECHNICAL DATA

6.1 TECHNICAL SPECIFICATIONS

AYER ZERO	
DIGITAL ENGINE	
Processor	MIPS Single Core 64bits 580MHz
AUDIO CONVERTERS	
Sampling rate	48kHz
Resolution	16bit
Bit rate	32~320kbps
Frequency response	5Hz - 24kHz (-3dB)
MEDIA PLAYER	
Audio sources	Local storage (USB & microSD), Internet radio, AirPlay, DLNA
Dynamic range	From -80 dB to 0 dB
THD + Noise	< 0.008% (1kHz, 1Vrms)
ANALOGUE AUDIO OUTPUTS	
Number of outputs	2 x Stereo output (unbalanced)
Connection type	RCA estéreo, minijack 3,5mm
Max output level	6dBV / 5k ohm
Output impedance	460 ohm
Dynamic range	ТВС
Crosstalk	ТВС
CONNECTIVITY	
Ethernet	RJ45 10/100Mbps
Wi-Fi	2.4GHz Wi-Fi, 802.11 b/g/n
Wi-Fi antenna	Front panel
Programing and control	Web Application, RePLayer & Gallery. Third party integration: JSON
REMOTE CONTROL CONNECTIONS	

GPIs

2 ports, Dry contact to ground, 3 pin Terminal block

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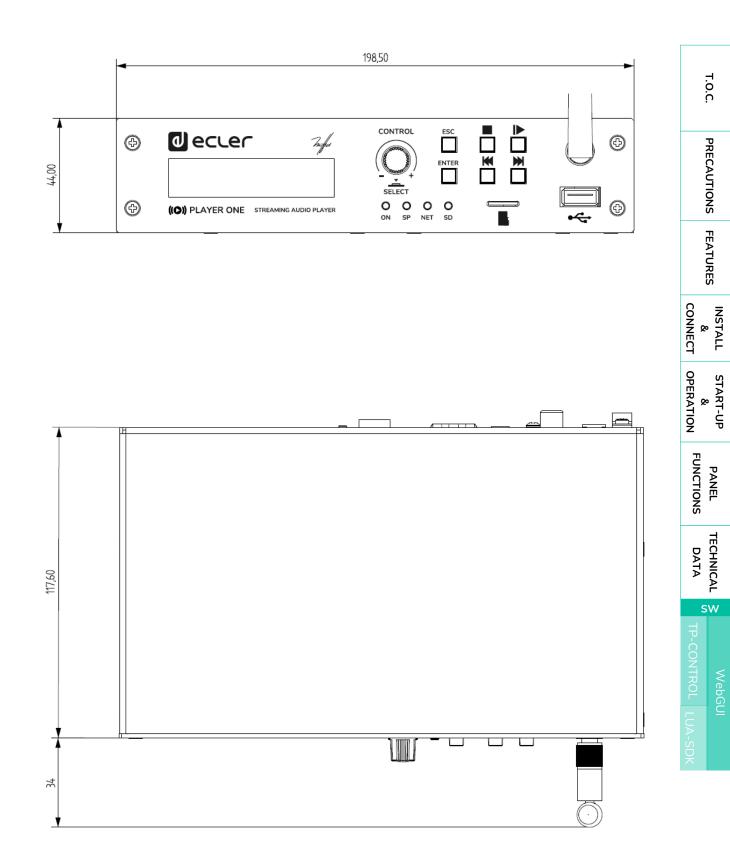
REAL-TIME CLOCK	
Retention time	240 hours aprox.
Accuracy	±1 minute / month
MONITORING AND CONTROL	
Display	No
LED indicators	Front panel: NET, SP, SD, Power
	Rear panel: Wifi
Buttons	Rear panel: Factoty Defaults / Fail Safe (pin- hole)
LOCAL STORAGE	
Micro SD	Front panel micro SD slot Supports micro SD SDXC
USB	Front panel USB female connector Support USB 2.0 High Speed (480 Mbps)
Capacity	Up to 2TB
File system	Supports FAT16, FAT 32, VFAT and NTFS (read-only) Multi-partition up to 1
Playable audio files	mp3, ogg, WAV, FLAC, AIFF, m3u, pls
Files analysis	65354 playable folders 65354 playable folders within each folder 65354 playable files within each folder
Folder hierarchy	Up to 8 containing the root directory
Sorting	UNICODE Up to 100 folders, 100 files by folder (Folders/files over 100 sorted in the FAT order)
ELECTRICAL	
Power supply	External, universal, 5VDC (included)
AC mains requirement	90-264VCA 50-60Hz
AC mains connector	International AC plugs set
Power consumption	4.5 VA / 2.2 W
Ventilation	Passive



PHYSICAL	
Operating temperature	Min 0°C, +32°F Max +35°C, +95°F
Operating humidity	< 85% HR
Storage temperature	Min -10°C, +14°F Max +50°C, +122°F
Storage humidity	< 90% HR
Installation options	Desktop, rack (1/3 of 1UR)
Included accessories	AD/DC Power Supply, WiFi antenna, adhesive rubber feet, rack tray screws , GPI connector, warranty card and standard user guide
Optional accessories	VEO-RACK19 Compatible
Dimensions (WxHxD)	126.5 x 44 x 132 mm / 4.98" x 1.73" x 5.19"
Weight	0.6 Kg / 1.32 lb
Shipping dimensions	450 x 220 x 60 mm / 17.71" x 8.66" x 2.36"
Shipping weight	0.8 Kg / 1.76 lb



6.2 MECHANICAL DIAGRAM





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PLAYER ONE / PLAYER ZERO -Web GUI (v1.00r0) **AUDIO PLAYERS** Streaming and local media audio player ≡ PLAYERONE REFRESHING 02:05 320 44.1 04:08 0008 / 0019 MMC Kbps KHz DUR INDEX/TOTAL SRC RAD IO HEA MMC P02: WorldwideFM STEREO ~ ~ ~ REPEAT ALL ~ SEQUENTIAL ~ XFADE ~ KEEP STATUS ~ Ecler 2021 / PLAYERONE 1.00r0 / Gallery Registration Key 6D28411E73FDC0B7

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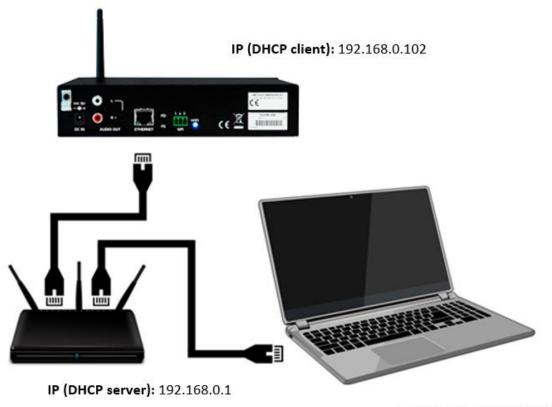
7. Web GUI (v1.00r0)

PLAYER ONE / PLAYER ZERO has a web application, embedded in the device itself, that allows you to configure it. It is not necessary to install any additional software. With this application, you can configure the device's advanced options, create playlists, schedule calendar events, create scripts or control basic functions remotely. The application can be accessed in a web browser from any device that is connected to the same local network, via Ethernet (wired) or WiFi.

7.1 FIRST STEPS

In order for the device to access the PLAYER ONE / PLAYER ZERO web application, **it must be connected to the network, either via a cable (RJ-45 connector) or wirelessly (WiFi).**

- Wired (Ethernet connection): By default, PLAYER ONE / PLAYER ZERO is set to DHCP mode. It will be assigned an IP address automatically.
 - Make sure that the static IP network parameters are compatible with your local network and the existing IP range of the system.



IP (STATIC): 192.168.0.101

Figure 2: example of connection to a local network via the Ethernet network interface (wired)



- WiFi: PLAYER ONE / PLAYER ZERO has a WiFi network interface, which means that mobile devices can stream audio to the device. It can be configured wirelessly. There two modes of operation:
 - MASTER mode: point-to-point connection. The device's WiFi network interface is set to this mode by default. Connect your WiFi device (computer, smartphone, etc.) as a client of the device via your WiFi network wizard (connect to the PLAYER-WIFI network, default SSID). The default password is: 0123456789.

Please Note: in this operating mode, no Internet connection is available. However, it will be useful when opening the web application for the first time and configuring the network parameters according to your needs.

CLIENT mode: this connection mode allows the device to connect to your preferred WiFi network. Mobile devices must then be connected to the same network in order to be able to configure PLAYER ONE / PLAYER ZERO. If your WiFi network has an Internet connection, both PLAYER ONE / PLAYER ZERO and the mobile devices will have Internet access.



Figure 3: example of connection to a local network via WiFi network interface (wireless)

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PLAYER ONE / PLAYER ZERO devices use the mDNS service so that they can be accessed intuitively through a web browser on the same local area network (LAN). To access the web application easily, enter "devicename.local/" into the search bar of your browser. By default this is, "**playerone.local/**" for PLAYER ONE, "**playerzero.local/**" for PLAYER ZERO.

$\square \blacksquare PLAYERONE - Player \times + \leftarrow \rightarrow C \bigoplus http://playerone.local/$	
	Authorization
	Plaasa antar vour usarnama ar

Figure 4: access via mDNS service

If you prefer (or if the mDNS service is not available), you can also access the device using the IP assigned to the PLAYER ONE / PLAYER ZERO:

• PLAYER ONE:

- Press and hold the MENU button for a few seconds until the configuration menu appears.
- Navigate by pressing the NEXT button, until the display shows WIFI or ETHERNET, depending on the chosen connection.
- Press the rotary encoder (SELECT)

• PLAYER ZERO:

As there is no screen to show you the IP, you need to find it on the web GUI of the DHCP server (Switch/Router). Refer to the manufacturer's documentation.

TOT	KEALTEN SEMILUNDUCTUN CUNF	192.100.1.10	00.E0.4C.0C.B2.IF	
	Player One	192.168.1.9 DHCP	0C:CF:89:21:E6:FD	Ð
	Player Zero	192.168.1.146 DHCP	30:EB:1F:2B:CB:E0	

Figure 5: web GUI Router example

Type the IP address of the device into the navigation bar of your browser (the IP shown in Figure 15 does not have to match the one assigned to your device).

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You will see the welcome screen. To access the application, the *username* and *password* are as follows (preset):

- Username: root
- Password: ecler

decler	PLAYERONE		
	PLAYERONE	Authorization Required Flese enter your username and password Username red Password Imiliaria COUNT	
		Eder 2	1021 / PLAYERONE 1.00r0 / Gallery Registration Key 6D28411E73FDC087

Figure 6: web application welcome page

7.1.1 QUICK GUIDE FOR ETHERNET CONNECTION

- **1.** Connect the PLAYER ONE / PLAYER ZERO to a switch/router via the Ethernet interface (wired).
- 2. Connect the computer/smart device to the same network.
- **3.** Enter "playerone.local/" for PLAYER ONE, or "playerzero.local/" for PLAYER ZERO, into your browser.

7.1.2 QUICK GUIDE FOR WIFI CONNECTION

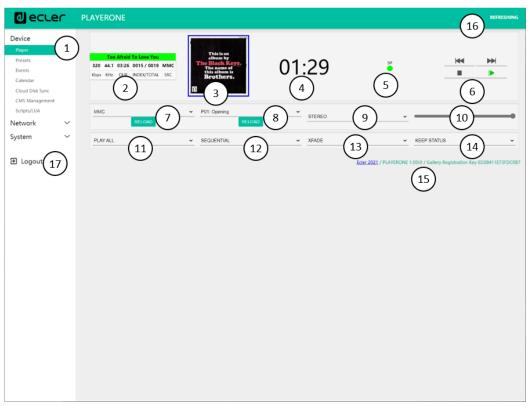
- Connect the computer/smart device to the PLAYER-WIFI network. Password: 0123456789
- **2.** Enter "playerone.local/" for PLAYER ONE, or "playerzero.local/" for PLAYER ZERO, into your browser.



7.2 DEVICE

7.2.1 PLAYER

This page in the PLAYER ONE / PLAYER ZERO menu displays information about playback, streaming tags and detailed information about the audio content, and in addition, it shows the album art. It also allows basic functions to be controlled remotely, such as PLAY/PAUSE, STOP, PREV and NEXT; source selection and user presets; repeat, play, and fade modes; channels (stereo/mono), volume control; and reset mode. There is useful information at the bottom of the page as well, such as the firmware version and the Ecler **Gallery** registration key.





- 1. Navigation menu: displays the web application's different navigation menus and submenus.
- 2. Streaming information: displays information about the stream or the audio file (depending on the way it is configured). If this information is not available, the default value is displayed, which is the URL.
 - ID3 Tags: title, artist, album, etc. 0
 - Kbps: bit rate/s 0
 - KHz: sampling frequency 0
 - DUR: duration 0
 - INDEX/TOTAL: index or position within all the files 0
 - SRC: source (USB, MMC, NET, etc.) 0

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- **3.** Album art: displays the album art for the file. For the album art to be correctly displayed, the device needs to have an Internet connection. If the album art cannot be displayed, it will show a default image.
- 4. Playback time: time elapsed since the start of playback of the URL or audio file.
- **5. Signal presence**: this will be green if the device has an audio signal at its output. If the device is not playing any audio, or if the volume level is too low, or the device is muted, it will be grey. This virtual LED will be the same colour as the SP LED on the front of the device. It is useful for dealing with issues when there is no audio signal.
- **6. Playback controls**: allow the device's playback controls to be operated remotely: PREV, NEXT, STOP, PLAY/PAUSE.

Please Note: PLAYER ZERO has no playback controls on the front panel.

- **7. Sources**: allows one of the available sources to be selected. The RELOAD button allows the current source to be reloaded.
- 8. **Presets**: allows one of the available presets to be selected. The RELOAD button allows the current preset to be reloaded. If changes are made to the current preset, a reload is required in order for the changes to be applied.
- **9. Stereo-mono**: selection of stereo output (left and right channels) or mono output (same signal on left and right channel).
- **10. Volume**: allows the volume to be controlled remotely.

Please Note: PLAYER ZERO does not have a volume control on the front panel.

11. Repeat mode:

- PLAY ALL: Plays through the entire playlist once.
- PLAY ONE: Only plays the first item in the playlist.
- REPEAT ALL: Repeats the entire playlist on a loop.
- REPEAT ONE: Only repeats the first item in the playlist.

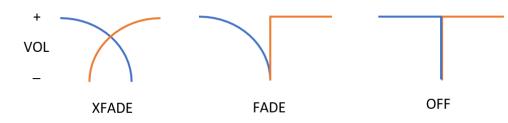
12. Play mode:

- SEQUENTIAL: Plays through the entire playlist in alphanumeric order.
- RANDOM: plays through the entire playlist in pseudo-random order.



13. Transition mode, for transitions between audio files:

- XFADE: The file that is playing fades out at the end of playback, as the next file increases in volume. There is a smooth transition between files (approx. 5 sec.). There is some overlap between tracks.
- FADE: The file that is playing fades out at the end of playback (approx. 2.5 sec.). There is a smooth transition between files. There is no overlap between tracks.
- OFF: deactivated. There is an abrupt transition between files. There is no attenuation or overlap between audio files.



PLEASE NOTE: if the playback file is short (2-3 sec. tone, for example) and XFADE transition mode is used together with REPEAT ONE/ALL repeat mode, special attention must be paid to the playback times of the files, and the transitions. This may cause unexpected behaviour.

14. Reset mode:

- KEEP STATUS: when the device is reset, the playback status will be maintained: source, preset, playback (PLAY, STOP, etc.) repeat mode, etc.
- LOAD PRESET 1: when the device is reset, it automatically loads preset 1.

15. Information: this displays the following relevant information:

- Year of development
- o Device firmware version
- Ecler Gallery platform registration key
- **16. Screen refresh**: allows the screen refresh to be paused (SP, playback time, file information, etc.). It also shows the number of changes made to a configuration before it is saved.
- **17. Logout**: this logs you out of the web application. You will be redirected to the welcome screen.

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7.2.2 PRESETS

PLAYER ONE/ PLAYER ZERO allows up to 20 presets or user configuration memories to be created. If you recall a *preset* stored in the device at a later date, it will recall all the settings that are stored in that preset.

decler	-	PLAYERC	ONE																
Device Player	^	P01: Opening P18 1	P02: Closing P20:	P03: LOUD	P04: soft	P05:	P06:	P07:	P08:	P09:	P10:	P1 1:	P12:	P13:	P14:	P15:	P16:	P17:	
Presets Events Calendar Cloud Disk Sync CMS Management Scripts/UVA Network	~	<pre>Vou can sel usb:// mmc:// airplay:// dlna:// http://str</pre>	ct the parameters ect the source from	n different loca		les:													
System 🗗 Logout	ý (3		rectory/sample.og	Name O															
			Ena	Playlist		SILE?	NCE												
				Play status 🗆 Volume (%) 🖬	1														
				Mute D)														
				epeat mode 🗆															
				Fade mode 🗆												5			
																	SAVE	RESET	

Figure 8: Preset configuration example

- **1. Page header**: this will show the 20 *presets*. Their default names are: P01, P02...P20. When you click on the name, it will display the configuration for that *preset*. The names that appear for the *presets* can be edited within the preset configuration. After this setting is saved in the preset, you need to refresh the browser page (F5) in order to display the changes in the header.
- 2. Information: displays useful information for configuring the presets.
- 3. Configuration options for the selected preset.
- 4. Save button: saves the settings made to the *preset* that is being edited.
- **5. Reset button**: resets the changes made to the last configuration that was saved in the *preset* that is being edited.

d ecler	PLAYERONE
Clearcher Payer Presets Events Calendar Cloud Disk Sync CMS Management Script/LUA Network System Customation System Customation Network System Customation System Customation Support Customation Support Supp	PLAYERONE
	Eder 2021 / PLAYERONE 1.000 / Gallery Registration Key 6029411E73/DC0697

- **1.** Load Preset button: loads the selected preset. This is useful as you can load the preset right after editing it, without having to change pages or handle the device.
- 2. Name: name of the preset. This is the name that will be displayed on the PLAYER ONE main menu/PRESETS (LCD screen), in the preset list on the Player page, in the Presets page header, and in the RePlayer application.

Please Note: PLAYER ZERO does not have an LCD screen.

3. Enabled Events: enables/disables events triggered by GPIs (General Purpose Input) and the silence detection event in the preset. The GPIs and the silence detection event must be configured on the Events page. See chapter Events for more information.

Please Note: for the GPI event to work correctly it must be configured and enabled in the preset, and the preset must be loaded. If a preset is loaded when the GPIs are disabled, the GPIs will not work.

- **4. Playlist:** if this option is enabled, when the preset is recalled, the playlist that is currently playing will be replaced by the source that is entered in the Source path/url field.
 - Media alias: alias of the source that is hosted in the preset (Source path/url). This alias will be displayed on the PLAYER ONE main menu/SOURCE (LCD screen) as an available source, in addition to the default sources (USB, SD, etc.). It will also allow you to directly access that media from any preset, from the Player page or the RePlayer application.

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Source path/url: this stores a network or local address in the preset. This address must be a valid address for the correct playback of audio content on the device. You can refer to the application prompts for entering local addresses (USB, SD, AirPlay, etc.). You can click on "Source path/url" (blue) to open the address that is entered in this field in a new browser tab. This option is available on several pages within the application. It is useful for checking that an audio source (Internet radio, for example) is functioning correctly, or for copying the address to create playlists (.m3u file, for example). See technical information (datasheet) for audio and playlist formats that are supported by the player.

Please Note: Internet radios saved via the front panel of PLAYER ONE are stored in the Playlist field.

- **5. Play status:** if this option is enabled, the status of the player will be overwritten when loading the preset.
- **6.** Volume (%) /MUTE: if this option is enabled, the volume/MUTE of the player will be overwritten when loading the preset (in %).
- **7. Play mode**: if this option is enabled, the play mode (sequential/random) will be overwritten.
- 8. **Repeat mode**: if this option is enabled, the repeat mode (play all, play one, repeat all or repeat one) will be overwritten.
- **9.** Fade mode: if this option is enabled, the transition mode between tracks within a playlist (off/fade/cross-fade) will be overwritten.
- **10. Stereo/Mono**: if this option is enabled, the mono or stereo output selection will be overwritten.

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7.2.2.1 EXAMPLES OF AUDIO SOURCES

Please Note: the addresses shown are **examples**, these Internet radio or local file addresses may not work on your player.

Media Path	Media Location	Items included in the play queue (just valid audio media)			
usb://	USB storage device, root folder	Media stored in the USB root folder and up to the third level of sub- folders in it			
mmc://	SD card storage device, root folder	Media stored in the SD card root folder and up to the third level of sub-folders in it			
usb://musicfolder/jazz/	USB storage device, \musicfolder\jazz folder	Media stored in the USB device \musicfolder\jazz folder and up to the third level of sub-folders in it			
mmc://musicfolder/jazz/	SD card storage device, \musicfolder\jazz folder	Media stored in the SD card \musicfolder\jazz folder and up to the third level of sub-folders in it			
mmc://evacuation_message.mp3	SD storage device, root folder	mp3 single file named evacuation_message.mp3			
usb://evacuation_message.mp3	USB storage device, root folder	mp3 single file named evacuation_message.mp3			
usb://path/my_collection.m3u mmc://path/my_collection.m3u	Defined by the m3u playlist file	Media pointed by my_collection.m3u playlist path is the folder path where the m3u file is located			
usb://path/my_songs.m3u8 mmc://path/my_songs.m3u8	Defined by the m3u8 playlist file	Media pointed by my_songs.m3u8 playlist path is the folder path where the m3u8 file is located			
usb://path/best_of_rock.pls mmc://path/best_of_rock.pls	Defined by the pls playlist file	Media pointed by best_of_rock.pls playlist path is the folder path where the pls file is located			
nttp://www.ecler.com/music/party_songs/party.m3u	Defined by the m3u playlist file	Media pointed by party.m3u playlist, and located in a Internet url (corporate web, etc.)			
http://www.ecler.com/music/party_songs/party.pls	Defined by the pls playlist file	Media pointed by party.pls playlist, and located in a Internet url (corporate web, etc.)			
<u>http://65.60.19.42:8040/</u>	Real-time streaming	Media served by an Internet audio streaming service with url <u>http://nnn.nnn.nnn:port</u> (in the example <u>http://65.60.19.42:8040/</u>)			
http://stream1.megarockradio.net:8240	Real-time streaming	Media served by an Internet audio streaming service with url <u>http://url:port</u>			
http://208.92.53.90:443/LOS40_SC	Real-time streaming	Media served by an Internet audio streaming service with url <u>http://url/folder</u>			
http://media_ musicradio.com/channel01.m3u	Real-time streaming	Media served by an Internet audio streaming service, a playlist with url <u>http://url/playlist.m3u</u>			



7.2.3 EVENTS

3 events are available: 2 of them are triggered by the GPI ports (by means of external, potential-free contact closures, which are connected to the GPI ports on the rear panel of the unit) and the other is triggered by silence detection. Both types of events can be configured on the Events page. By selecting the tab that corresponds to the event, you can access its configuration.

Please Note: bear in mind that, for the events to work correctly, they must be enabled in the *preset* currently in operation.

	ſ	PLAYERONE
Device Player Presots Events Calendar Cloud Disk Sync	^	GPI 1 LINCE Event GPI1 Event configuration lets DEVICE execute aut 2 clions. NOTE: Event must be enabled in the preset.
CMS Management Scripts/LUA Network System	> >	Source Target 3 Polarity DIRECT DIRECT or REVERSE event polarity SAVE: A 45012 SAVE RESET
E Logout		Eder 2021 / PLAYERONE 1.00+0 / Gallery Registration Key 6D28411E73FDC087

Figure 9: GPI event configuration example

- **1. Page header**: displays GPI and silence events. When you click on the name, it will display the configuration for that event.
- 2. Information: displays useful information for configuring the events.
- **3.** Configuration options for the selected event.
- **4.** Save & Apply button: saves the changes made to the GPI that is being edited and applies them. If the *preset* that is currently in operation has such an event enabled, it is not necessary to reload the *preset*.
- **5. Save button**: saves the changes made to the GPI that is being edited without applying them. In this way, if the *preset* that is currently in operation has such an event enabled, the changes will only be applied when the *preset* is reloaded.
- **6. Reset button**: resets the changes made to the last saved configuration in the event that is being edited.

Please Note: you can configure the different tabs (Source, Target) before saving, and the changes are retained.

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7.2.3.1 GPI EVENTS

There are 2 GPI events: GPI1 and GPI2. They can each be configured to trigger in different ways and perform independent actions.

decler	PLAY	YERON	NE		
Device ^ Player Presets	GPI1	GP12	silence		
Events Calendar Cloud Disk Sync				ICE execute auto	tomated functions.
CMS Management Scripts/LUA		Source	Target		
Network \checkmark					y DIRECT UIRECT UIRE
System 🗸					
₽ Logout					AVE APPLY AVE RESET

Figure 10: GPI configuration, Source

- Source: source
 - **Polarity**: polarity, direct or inverse; to define the trigger, by contact closure or contact release.

Events Even		
CMS Management	GP2 SILENCE Vent GPI1 Int configuration lets DEVICE execute automated functions. TFE Event must be enabled in the preset.	
Scripts/LUA	Source Target	
Network V System V	Source path / url mmc://voice/campaigns/summer/promo1.wav Specify the source as mmc:// usb:// http://host/playlist.m3u	
➔ Logout	Playback Duration PULSE Playback Duration PULSE HOLD: meanwhile trigger is active / PULSE a defined time, after the trigger	
	Retrigger 🖾 Time 10	
	Playback duration Time in seconds. Example '6.5'	
	Edet 2021 / PLAYERONE	SAVE & APPLY SAVE RESET

- **Target tab**: an action that the device will perform after GPI activation. There are several options or types of event (Type):
 - Internal: internal stimulus. This is useful for triggering actions within a Script.
 - **Preset** recall: loading a preset. Select the preset you want to load with the GPI activation.
 - **Transport control**: control of current playback, play/pause, play, stop, next, prev.
 - **Load & Play Source**: loading and playback of a source. The source must be specified in the "Source path/url" field.
 - Priority Source: playback of a source with priority over programmed audio. The source specified in the "Source path/url" field attenuates the source that is playing (programmed audio). When the priority audio ends, the programmed audio resumes playing, gradually returning to its previous volume.
 - If the HOLD option is selected, the source specified in the "Source path/url" field will be given priority WHILE the stimulus is held (GPI direct/reverse, as specified in the "Source" tab).
 - If the PULSE option is selected, the source specified in the "Source path/url" field will be prioritized for the time (in seconds) specified in the Time field. The Retrigger option allows the priority event to be re-triggered without waiting for it to finish and restarting the timer.

Please Note: a priority event can be useful for playing announcements, pre-recorded announcements, emergency announcements, etc. For more information on priorities see chapter <u>Regarding Priorities</u>.

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7.2.3.2 SILENCE DETECTION EVENT

PLAYER ONE/ PLAYER ZERO has a special event, the SILENCE detection event: absence of a real analogue audio signal at the unit's outputs. This allows the player to continue playing the media when the programmed audio that is being played ends, or is interrupted for any reason, which may sometimes happen due to certain problems that may arise (loss of Internet, accidental disconnection of the network cable, bad files, etc.): "*The show must go on*".

	r	PLAYERONE UNSAVED CHANGES: 6
Device Playor Prosets Events Calendar Cloud Disk Sync	^	GP1 GP2 SILENCE Event Configuration lets DEVICE execute automated functions. NOTE: Event must be enabled in the preset.
CMS Management Scripts/LUA Network	~	Source Target Detection time 20
System	~	Silence duration in seconds SAVE & APPLY SAVE RESET
Logout		Eder 2021 / PLAYERONE 1.000 / Gallery Registration Key 6026411E73/DC087

Figure 12: silence event configuration

- **Source tab:** waiting time, or trigger threshold (detection time). Select the time allowed for silence (no audio signal) before the event is triggered.
- **Target tab**: select the action that PLAYER will perform when the specified waiting time has elapsed.
 - Internal: internal stimulus. This is useful for triggering actions within a Script.
 - **Preset recall:** loading a preset. Select the preset you want to load when the silence event is activated.
 - **Load & Play Source**: loading and playback of a source. The source must be specified in the "Source path/url" field.

Tip: configure the uploading of local audio content (hosted on USB or uSD) as an action. This will ensure that you always have audio available, regardless of network connection issues that may occur outside of the player. Likewise, if you want to load a preset, ensure that the audio address stored in the selected preset is a local one (e.g. usb://) and that this preset has Play Status overwrite enabled, so that the PLAY option is selected. This will force the local medium to play, ensuring the continuity of the musical programme.



7.2.4 CALENDAR

The Calendar page allows calendar-triggered events to be configured.

A calendar event performs a certain action, such as loading a message with priority, in accordance with configurable parameters: date, time, repetitions, etc.

d ecter	PLAYERONE	
Device -	C01: Morning C02: Afternoon C03: Working-days C04: Weekend C05: C06: C07: C08: C07: C10: C11: C12: C13: C14: C C16: C17: C18: C19: C20: C21: C22: C21: C24: 1	215:
Presets Events Calendar Cloud Disk Sync	Calendar 1 Calendar configuration lets DEVICE execute automated functions on date event.	
CMS Management Scripts/LUA	General Source Target	
	Enabled C Check this option to enable calendar	
System	Name Morning	
E Logout	SWE	RESET
	Eder.2021 / PLAYERONE 1.0040 / Gallery Registration Key 6028411	1E73FDC0B7

Figure 13: example of configuring a calendar event

- 1. PLAYER ONE/ PLAYER ZERO has 24 calendar events available, each of which are fully configurable. The default names are: C01, C02...C24. When you click on the name, it will take you to the configuration for that calendar event. The names that appear for the calendar events can be edited within the preset configuration. After this setting is saved in the calendar event, you need to refresh the browser page (F5) in order to display the changes.
- 2. The configurable parameters of each calendar event are grouped into 3 tabs:
 - o **General**: activation/deactivation of calendar events and their name
 - o Source: start/end date, start/end time, and event repeat conditions
 - Target: action to be performed when the event is triggered

Please Note: before configuring calendar events, make sure that the time zone is set correctly: System/Name and time.

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decler	PLAYERONE REFRESHING UNSAVED CHANGES: 4
Device ~ Network ~ System ^	Name and time Here you can configure the basic aspects of your device like its hostname or the timezone.
Name and time Security Backup, Restore and Firmwar USB/MMC Settings Register Reboot	Ceneral Settings Time Synchronization Local Time 17/8/2021 16:22:08 SYNC WITH NTD-SERVER Hostname PLAYERONE Timezone EuropeMadrid
Logout	Edge 2021 / PLAYEROME 1.000 / Gallery Registration Key 6020411E7JECOM7

Figure 14: Name and Time configuration

7.2.4.1 GENERAL

PLAYERONE UNSAVE	D CHANGES: 4
C01: Morning C02: Afternoon C03: Working-days C04: Weekend C05: C06: C07: C08: C09: C10: C11: C12: C13: C14: C16: C17: C18: C19: C20: C21: C22: C23: C24:	C15:
Calendar 1 Calendar configuration lets DEVICE execute automated functions on date event.	
General Source 1 Enabled Check this option to enable calendar Name Morning	
SAVE Ecler 2021 / PLAYERONE 1.00r0 / Gallery Registration Key 6D2	RESET
	C01: Morning C02: Afternoon C03: Working-days C04: Weekend C05: C06: C07: C08: C09: C10: C11: C12: C13: C14: C16: C17: C18: C19: C20: C21: C22: C23: C24: Calendar 1 Calendar configuration lets DEVICE execute automated functions on date event. General Source 1 Enabled Check this option to enable calendar Q Name Morning Morning Morning Morning Morning

Figure 15: configuring a calendar, General

- **Enable**: allows you to enable or disable the calendar. If the calendar is enabled (ready for activation by dates/times), it will be enabled in all *presets*.
- Name: name of the calendar.



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7.2.4.2 SOURCE

In the SOURCE tab, the parameters for the triggering time/date and event replay conditions are configured.

	r	PLAYERON	NE																
Device Player	^	C01: Morning C16: C17:	C02: Afterno C18: C19		Working C21:		C04: We C23:	ekend C24:	C05:	C06:	C07:	C08:	C09:	C10:	C11:	C12:	C13:	C14:	C15:
Presets Events Calendar Cloud Disk Sync		Calendar cont		DEVICE exe	cute auto	omated f	functions (on date (event.										
CMS Management Scripts/LUA		General	Source	Farget															
Network	~	Date	and Time int		Date 17	/08/20	11		Ē										
System	~			Start 1	lime 08	• : 0	• •												
➔ Logout				Dura	tion Ct	USTOM	END DATE				v								
					Date <u>17</u>				E										
		Wee	kly repetition	thu	20														
				ctive these	days Mo	, ⁶³ ти ⁶	We ^{III} T	E Fr	sa [□] su										
		Daily	repetition	Re	peat 🖾														
				Inte	erval 01	v : 0	o ↓: 00	÷											
					mes 5														
			The e	ent will finis			' button b												
																		_	_
																		SAVE	RESET
												Ecler 202	21 / PLAY	ERONE 1	.00r0 / Ga	illery Reg	istration	Key 6D28	411E73FD

Figure 16: configuring a calendar, Source

7.2.4.3 DATE AND TIME INTERVAL

Defines the date and time when the event starts and the date and time when the event ends, if there is a specific end date and time.

- Start date: start date for the event. This field is not mandatory. If no specific date is selected ("dd/mm/yyyy"), the event will start on the same day as the changes are applied. If you select a date that is before the current date, the event will be valid as of the day the changes are applied.
- **Start time**: start time for the event. This field is mandatory. If there is a repeat condition, this will be the time at which the event is triggered for the first time each day.
- **Duration**: duration or validity of the calendar event. This allows calendar event duration settings to be selected.
 - **FOREVER:** This option is selected by default. The calendar event will not have an end date.
 - **CUSTOM END DATE**: end of the calendar event. This allows you to set the date and time when the calendar event will be triggered for the last time, regardless of repeat conditions.

Date and Time interval			
Start Date	17/08/2021		
Start Time	08 🗸 : 00 🗸		
Duration	CUSTOM END DATE		<u> </u>
End Date	17/08/2022	II	
End Time	23 🗸 : 00 🗸		

Figure 17: interval example



7.2.4.3.1 WEEKLY REPETITION

Weekly mask, or days of the week on which the calendar event will be repeated, at the time indicated in "Start Time".

For example, if you select Monday to Friday (weekdays), the configured event will not be triggered on Saturdays and Sundays (weekends).

Weekly repetition				
Activ	ve these days Mo 🛛 Tu 🖾 W	e 🏾 Th 🗳 Fr 🖉 Sa 🗌 Su 🗌		



Please Note: if you do not select at least one day of the week, the calendar event will never be triggered. Also, if you set an event to be triggered on a day of the week which is not selected in the weekly mask, it will never be triggered.

7.2.4.3.2 DAILY REPETITION

Daily repetitions. This option is set to be deselected by default. Selecting it will open a drop-down menu where you can configure the repetition conditions:

- **Interval**: repetition interval. This indicates how often the calendar event triggering is repeated, beginning at the Start Time.
- Times: number of repetitions. This indicates the number of times that the calendar event will be repeated, with time in between as indicated by the value in "interval". The first time the event is triggered each day does not count as a repetition, so if you want an event to be triggered twice a day, "times" should be set to 1 (the first time + 1 repetition). This value must be equal to or greater than 1.

Daily repetition		
Repeat		
Interval	01 • : 00 • : 00 •	
Times	5	_
The event will finish at	13:00:00	-
	Press 'Save' button to refresh	



• "The event will finish at" indicates the time at which the calendar event will run for the last time each day. This parameter cannot be configured (read only). It is intended to help the user configure the "Interval" and "Times" parameters in a more efficient way.

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7.2.4.4 TARGET

An action that is executed each time the calendar event is triggered.

decler	PLAYERONE
evice ^	C01: Morning C02: Afternoon C03: Working-days C04: Weekend C05: C06: C07: C08: C09: C10: C11: C12: C13: C14: C15: C16: C17: C18: C19: C20: C21: C22: C23: C24:
Presets Events Calendar	Calendar 1 Calendar configuration lets DEVICE execute automated functions on date event.
Cloud Disk Sync CMS Management Scripts/LUA	General Source Target
etwork ~	Type PRIORITY SOURCE V
/stem 🗸	Source path / url mmc //voice/campaigns/summer/promo3 wav
	Specify the source as mmc:// usb:// http://host/playlist.m3u
	Eder 2021 / PLAYERONE 1.0010 / Gallery Registration Key 6D28411E73FDC0

Figure 20: calendar event example, Target

This action may be:

- **1. Internal**: internal stimulus (does not perform an action directly, but allows actions to be triggered via scripts)
- 2. Preset recall: loading a preset
- **3. Transport control**: pressing a button on the transport bar; STOP, PLAY, PREV, NEXT, PLAY/PAUSE
- 4. Load & Play source: loading and playback of a source
- **5. Priority source**: playback of a source with priority. The source with priority will overwrite the source that is currently playing. When the priority announcement/message ends, the source that was playing will start to play again.

7.2.4.5 REGARDING PRIORITIES

Calendar events have **lower** priority than events that are triggered by GPI. Therefore, different degrees of priority can be established. For example, in a shop, calendar-based events can be used to trigger voice messages indicating an offer, while GPI events can be used to trigger an evacuation message.

In addition, there is a higher level index that determines priority if it is the case that 2 calendar-based triggers occur at the same time. For example, CALENDAR02 is set to repeat a message every hour and CALENDAR03 is set to repeat a message every two

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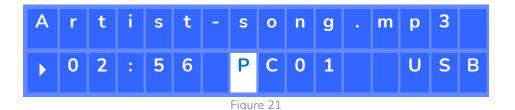


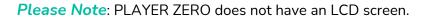
hours (both events have the same start time). The messages will alternate every hour, as CALENDAR03 will take precedence over CALENDAR02.

If a calendar event is playing and then a second event comes in, the last event to arrive will overwrite the one that is playing, regardless of their indexes.

When a priority event is playing, it can be seen on the PLAYER ONE screen. The characters PC01 indicate: P, event with Priority; C, calendar event; and 01, calendar index, from 01 to 24.

If this is an event triggered by a GPI, PI01 or PI02 will be shown on the screen, indicating: P, event with Priority; I, GPI event; and **01**, GPI input index, from 01 to 02.





7.2.4.6 PRACTICAL EXAMPLE OF CONFIGURATION OF CALENDAR EVENTS

An establishment whose business hours are 10:00 a.m. to 8:00 p.m., and which is open from Monday to Friday, requires background music, and will periodically make announcements to its customers.

- **Background music**: this will always be the same audio stream. It will start playing at 9:45 a.m., and it will play continuously until 8:00 p.m. At this time, there should no longer be audio playing in the establishment.
- Announcements: every day, the closing time of the establishment will be indicated (pre-recorded message) 15 minutes before closing. It will be recalled again 5 minutes before closing.
- **Campaigns**: there will be a special Christmas campaign from 15 December to 15 January indicating an offer (pre-recorded message). This message is to be repeated every day during this period, every 30 minutes.

Please Note: there may be several methods of meeting these requirements. This example attempts to illustrate the most relevant features of calendar events in a simple way.

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7.2.4.6.1 CALENDARS FOR BACKGROUND MUSIC

2 calendar events will be created: one to load the *stream* and play it, and another to stop it.

The colorder	ia anahla	a and it is		idontifi inon	
The calendar	is enable	and it is	aiven an	ideniiivind	name
The catomaan		a, and rend	given an	i a chi chi y hi i g	

d ecle	r	PLAYERONE
Device Player Presets	^	C01: Morning C02: Alternoon C03: Working-days C04: Weekend C05: C06: C07: C08: C09: C10: C11: C12: C13: C14: C15: C16: C17: C18: C19: C20: C21: C22: C23: C24:
Events Calendar Cloud Disk Sync		Calendar 10 Calendar configuration lets DUVICE execute automated functions on date event.
CMS Management Scripts/LUA		General Source Target
Network System	~	Check this option to enable calendar Name Opening
∃ Logout		SAF
		Edet 2021 / PLAYERONE 1.000 / Galley Registration Key 6028411E73F0C087

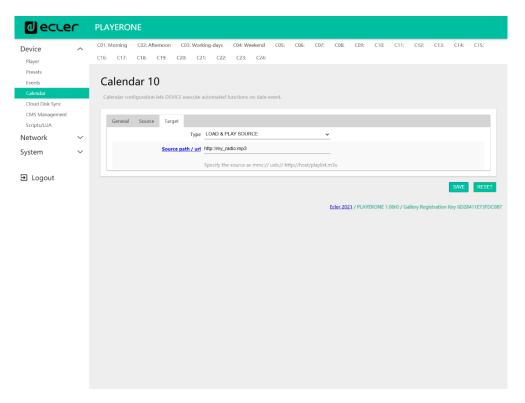


Since no start date is specified, "Start date" is left as the default value ("dd/mm/yyyy"). This means that the event is active from the day the changes are applied. The time is known (9:45 a.m.), and it is to be played every day, without an end date (FOREVER).

Since the event is to be repeated from Monday to Friday, the corresponding days are selected in the weekly mask.

d ecter	-	PLAYERONE
Device Player	^	C01: Morning C02: Afternoon C01: Working-days C04 Weekend C05: C06: C07: C08: C09: C10: C11: C12: C12: C14: C15: C16: C17: C18: C19: C20: C21: C22: C22: C24:
Presets Events Calendar		Calendar 10
Cloud Disk Sync CMS Management		Calendar configuration lets DEV/CE execute automated functions on date event.
Scripts/LUA		General Source Target Date and Time interval
Network System	ž	Start Date (dd/mm/assas
➔ Logout		Start Time 00 v : 45 v Duration FORENER v
2		Weekly repetition Active these days $_{MO} \boxtimes_{10} \boxtimes_{We} \boxtimes_{11} \boxtimes_{F_{0}} \boxtimes_{Sa} \square_{Su} \square$
		Daily repetition
		Repeat 🗆
		SWE RESET
		Eder 2021 / PLAYERONE 1.000 / Gallery Registration Key 6026411673fDC087

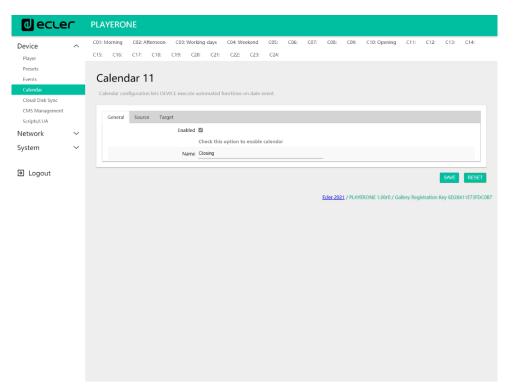




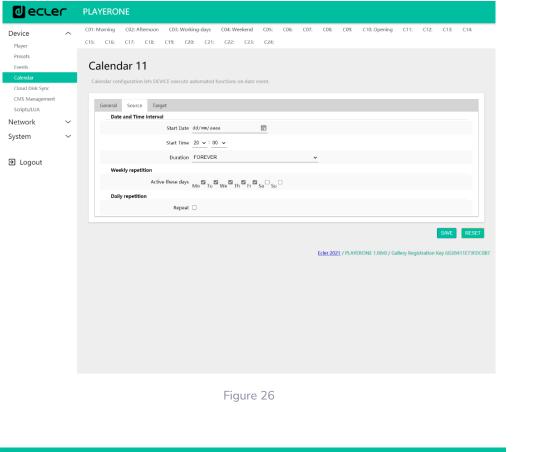
The action of loading and playing the specified stream is configured.

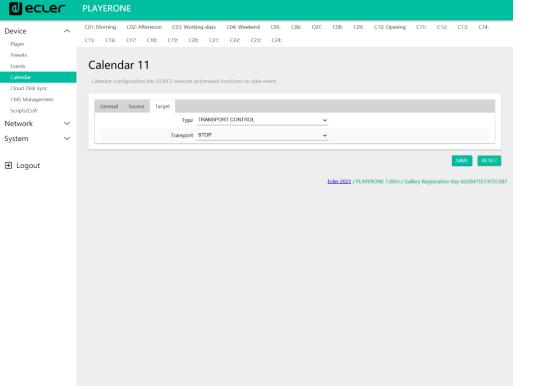
Figure 24

The calendar event that will stop the playback of the background music is configured in the same way as the last one. The only difference is that this time the action in question is to stop the playback; STOP. This calendar event will be given a different name and start time.











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7.2.4.6.2 CALENDAR FOR CLOSING ANNOUNCEMENTS

Every day, the closing time of the establishment will be indicated (pre-recorded message) 15 minutes before closing. It will be recalled again 5 minutes before closing.

d ecler	PLAYERONE
Device ^ Player	C01: Morning C02: Afternoon C03: Working-days C04: Weekend C03: C06: C07: C08: C09: C10: Opening C11: Closing C12: C13: C14: C15: C16: C17: C18: C19: C29: C21: C22: C24:
Presets Events Calendar	Calendar 12 Calendar configuration lets DEVICE execute automated functions on date event.
Cloud Disk Sync CMS Management Scripts/LUA	General Source Target
Network ~	Enabled 🖾 Check this option to enable calendar
System 🗸	Name Closing message
➔ Logout	SAVE RESET
	Edet 2021 / PLAYERONE 1.0010 / Gallery Registration Key 6D26411E73FDC0E7



The message should be played twice a day: 15 minutes before closing (at 7:45 p.m.) and 5 minutes before closing (at 7:55 p.m.). Therefore, it will be necessary to configure a calendar event that repeats one time, 10 minutes after it is triggered for the first time. This is achieved by enabling *Repeat* and configuring the *Interval* and *Time* parameters correctly.

Payer Process C16 C17 C16 C19 C20 C21: C22 C23 C24 Process Calendar 12 Calendar 12 Calendar 12 Calendar 12 Calendar 12 Calendar 12 Calendar 14 Calendar 14 Calendar 14 Caler	d ecler	PLAYERONE
Calcal Calculate Size Case Mage and Case Calculate Size Calculate Size Data and Functions on date event. Calculate Calculate Size C	Player	
solptulA letwork v ystem v logout denned Source Target Date and Time interval Start Time 10 v: 45 v Duration FOREVER v Moe Tar Wee The Tro Sa Su Daily repetition Repeat 1 Interval 00 v: 10 v: 00 v Times 1 The event will finish at 105500 Press Sawe' button to refresh	Events Calendar Cloud Disk Sync	
Active these days Image: active these da		General Source Target
ystem V Start Date dd/m/xaaa Start Time 10 v : 45 v Duration FOREVER v Weekly repetition Active these ddys Mo [®] Tu [®] We [®] Th [®] rs [®] s [®] su [®] Daily repetition Repeat Interval 00 v : 10 v : 00 v Times 1 The event will finish at 195500 Press Saver button to refresh		
Start Time 10 • : 45 • Cogout Cogout Cogout Cogout Cogout Cogout Cogout Cogout Cogout Cogout C		
Logout Weekly repetition Active these days Mo T T Wee Th T T So S U Daily repetition Interval Interval 00 : 10 : 00 : Times 1 The event will finish at 105500 Press Sawe' button to refresh	System	
Weekly repetition Active these days Mo Daily repetition Repeat Interval 00 - : 10 - : 00 - Times 1 The event will finish at 19:55:00 Press Save" button to refresh	→ Lonout	Duration FOREVER V
Daily repetition Repeat Image: Control of the second sec	Logout	Weekly repetition
Repeat Image: Control of the second seco		Active these days Mo Tu We Th Tr Sa Su C
Interval 00 - : 10 - : 00 - Times 1 The event will finish at 1955 00 Press "Save" button to refresh		Daily repetition
Times 1 The event will finish at 1955 00 1955 00 Press "Save" button to refresh SAVE		Repeat 🖾
The event will finish at 1955:00 Press Save' button to refresh SWE RESET		Interval $00 \checkmark : 10 \checkmark : 00 \checkmark$
Press Save' button to refresh SWE RESET		Times 1
SWE RESET		The event will finish at 19:55:00
		Press 'Save' button to refresh
<u>Eder 2021</u> / PLAVERONE 1.000 / Gallery Registration Key 6028411E/34DC0E		SWE REST
		Ecler 2021 / PLAYERONE 1.000 / Gallery Registration Key 6D28411E73FDC08



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Finally, the message located on the SD card ("mmc://...") will be announced with priority.

d ecte	ſ	PLAYERONE
Device Player	^	C01: Morning C02: Afternoon C03: Working days C04: Weekend C05: C06: C07: C08: C09: C10: Opening C11: Closing C12: Closing message C13: C14: C15: C16: C17: C18: C19: C20: C21: C22: C23: C24:
Presets Events Calendar		Calendar 12
Cloud Disk Sync CMS Management		Calendar configuration lets DEVICE execute automated functions on date event.
Scripts/LUA Network	~	General source Target Type PRIORITY SOURCE
System	\sim	Source path / url mmc:/dosing.wav Specify the source as mmc:// usb:// http://host/playlist.m3u
Ð Logout		speciely the source of mine (7 oue)? mp?//hot/pulyide.mov
		Ecler 2021 / PLAVERONE 1.000 / Gallery Registration Key 6028411E73FDC087

Figure 30

1.1.1.1 CALENDAR FOR CHRISTMAS CAMPAIGN

decle	r	PLAYERO	NE											
Device Player	^	C01: Morning C13: C14:	C02: Afternoon C15: C16:	C03: Working C17: C18:	-days C19:	C04: Weekend C20: C21:	C05: C22:	C06: C23:	C07: C24:	C08:	C09:	C10: Opening	C11: Closing	C12: Closing message
Presets Events Calendar		Calenc		1105		for allows any data								
Cloud Disk Sync CMS Management Scripts/LUA		General	Source Tar			functions on date (event.							
Network	~			Enabled 🖬	eck this	option to enable	calendai							
System	~			Name Xn	185					-				
➔ Logout														SAVE
										Ecler 202	1 / PLAY	ERONE 1.00r0 / Ga	llery Registration	Key 6D28411E73FDC0B7



As this is for a specific calendar interval (15/12/21 to 15/01/22), an end date is set by choosing CUSTOM END DATE and setting the *End date* and *End time* parameters correctly.



Regarding repetitions, the message has to be played every 30 minutes, and it is known that the establishment closes at 8:00 p.m. As there will be no audio at 8:00 p.m., we will set the number of repetitions in such a way that the last time the event is triggered is 30 min before closing.

	ſ	PLAY	ERO	NE														
Device	^	C01: Mo	rning	C02: At	ternoon	C03:	Working	days	C04: W	eekend	C05:	C06:	C07:	C08:	C09:	C10: Opening	C11: Closing	C12: Closing message
Player		C13:	C14:	C15:	C16:	C17:	C18:	C19:	C20:	C21:	C22:	C23:	C24:					
Presets Events		Cal	end	lar 1	3													
Calendar		Calen	dar con	figuratio	n lets DEV	/ICE exec	ute aut	omated f	iunctions	on date (event.							
Cloud Disk Sync CMS Management																		
Scripts/LUA		G	eneral	Source														
Network	\sim		Date	and Tim	ie interva						_							
System	\sim						_	/12/202										
								0 • : 00										
➔ Logout							_		END DATE	-			~	-				
						End [Date 15	/01/202	22									
						End T	ime 20) v : 00) ~									
			Wee	kly repet														
						e these o	lays M	Ти	We T	h 🖉 Fr 🗹	Sa 🗆 Su	0						
			Daily	/ repetiti	on	Doe	peat 🖾											
								_) •:00	Ŷ								
							mes 19							-				
				1	The event	will finis	h at 19	30:00						-				
							Pr	ess 'Save	' button t	o refresh								
																		SAVE RESET
														Ecler 202	1 / PLAY	ERONE 1.00r0 / Ga	llery Registration	Key 6D28411E73FDC0B7



Finally, the message located on the USB device ("usb://...") will be announced with priority.

d ecte	r	PLAYERONE
Device Player	^	C01: Morning C02: Afternoon C03: Working-days C04: Weekend C05: C06: C07: C08: C09: C10: Opening C11: Closing C12: Closing message C13: Xmas C14: C15: C16: C17: C18: C19: C20: C21: C22: C23: C24:
Presets Events Calendar		Calendar 13
Cloud Disk Sync CMS Management		Calendar configuration lets DEV/CE execute automated functions on date event.
Scripts/LUA Network	~	General Source Target Type PRIORITY SOURCE
System	~	Source path / url ub///mmos.wav Specify the source as mmc// usb/// http://host/playlist.m3u
➔ Logout		SWE RESET
		Eder 2021 / PLAYERONE 1.00r0 / Gallery Registration Key 6028411E73FDC087





7.2.5 CLOUD DISK SYNC

The Cloud Disk Sync module allows the device to download remote audio content to local storage media (USB/uSD). When it is active, it checks a remote location that hosts audio content on a daily basis, compares it to the current content stored on local media (USB/uSD) and, if necessary (if differences are detected), syncs the local content to make it an exact copy of the remote content. This is a safe method of playing content during the device's working hours (during the day), as it is stored on local media, and does not carry the same risks as receiving real-time *streaming*.

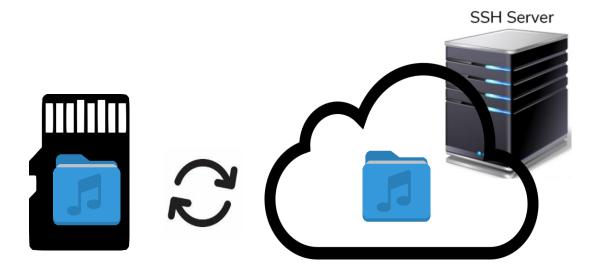


Figure 34: syncing folders with Store and Forward (rsync)

PLAYER ONE/PLAYER ZERO enables syncing through Store and Forward (rsync).

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7.2.6 STORE AND FORWARD (RSYNC)

The Store & Forward module allows you to sync the content of the USB/uSD device with a folder that is hosted on a remote server on a daily basis. It also allows for automatic playback of this content, in combination with the *Load preset1* reboot mode. This service uses the rsync (Remote Sync) sync tool.

decler	PLAYERONE
Device ~ Player Presets Events Calendar Cloud Disk Sync Cloud Disk Sync CMS Management Scripts/LUA Network ~ System ~ Device *	Google Drive Store and Forward (rymc) Store and Forward (rsync) Store and Forward (rsync) Store and Forward (rsync) Store and Forward (rsync) Store and Forward (rsync) Store and recall PRESET to automatically play it. Store and Source Local Target Log Store and Source Local Target Log Enabled Check this option to enable daily Store&Forward process Time (HHEAM) when synchronization will be executed Addo playback will be interrupted Time (HHEAM) when synchronization will be executed Store Store 201 / PLAYERONE 1.000 / Gallery Registration Key 6028411E73TOCOR Exter 2021 / PLAYERONE 1.000 / Gallery Registration Key 6028411E73TOCOR

- Figure 44: Store & Forward module
- 1. General: enables the S&F service and selects the sync time.
- 2. Remote source: remote server configuration.
- 3. Local target: configuration of the local folder where the content is stored.
- 4. Log: activity log for the S&F module

For more information on the Store & Forward service, please <u>refer to the chapter</u> <u>Configuration of an SSH server for Store & Forward (rsync).</u> T.O.C.



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7.2.6.1 GENERAL

d ecle	r	PLAYERONE
Device	^	Google Drive Store and Forward (rsync)
Player		
Presets		Store and Forward (rsync)
Events		Store&Forward module lets DEVICE download remote media content to local storage devices (USB/MMC), daily, and recall PRESET1 to automatically play it.
Calendar	_	
Cloud Disk Sync		General Remote Source Local Target Log
CMS Management Scripts/LUA		Enabled
Network	~	Check this option to enable daily Store&Forward process
		Time 03 🗸 : 00 🗸
System	\sim	Time (HH:MM) when synchronization will be executed
		Audio playback will be interrupted
Elegent		
		SAVE RESET
		Eder 2021 / PLAYERONE 1.00r0 / Gallery Registration Key 6D28411E73FDC087

Figure 45: S&F, General

- Enabled: This enables/disables the running of the daily sync.
- **Time**: time at which the daily sync is run.



7.2.6.2 REMOTE SOURCE

decle	r	PLAYERONE	
Device Player Presets Events Calendar	^	Google Drive Store and Forward (rsync) Store and Forward (rsync) Store&Forward module lets DEVICE download remote me	lia content to local storage devices (USB/MMC), daily, and recall PRESET1 to automatically play it.
Cloud Disk Sync CMS Management		General Remote Source Local Target Log	
Scripts/LUA		Host 10.0.2.15	
Network	\sim	Host or IP Ac	dress
System	\sim	Port 22	
		Folder /home/hotels/	notels
🔁 Logout		Host Folder v	here contents are stored
		Username hotels	
		1111110011 BM 6701110011000 0000000000000000000000000	RAL PRIVATE EEV RACCOUNCAST HAMDELINGGODD TIKQVYPSIGTIGSINGHT+11 RACCOUNCAST HAMDELINGGODD TIKQVYPSIGTIGSINGHT+11 RACCOUNCAST HAMDELINGGODD TIKQVYPSIGTIGSINGHT+11 RACCOUNCAST HAMDELINGGODD TIKQVYPSIGTIGSINGHT+11 RATE RACCOUNCAST HAMDELINGGODD TIKQVYPSIGTIGSINGHT+11 RACCOUNCAST HAMDELINGGODD TI
		Timeout 10	
		Timeout in se	conds [5.30]
			SAVE RESET Eder 2021 / PLAVERONE 1.0010 / Gallery Registration Key 6D28411E73FDC087



- Host: host or IP address of the server.
- **Port**: server port, by default, 22
- **Folder**: directory within the server where the audio content that is to be synced is stored.
- Username: user or name of the content group
- **Private key**: private password generated for the indicated user or content group.

Please Note: for security and efficiency reasons, the remote server where the content is hosted must be **SSH**, and public and private passwords must be enabled and used.



7.2.6.3 LOCAL TARGET

decler	PLAYERONE
Device A Player Presets Events Calendar	Google Diffe Store and Forward (typic) Store and Forward (rsync) Storebroward module lets DEVICE download remote media content to local storage devices (USE/MAC), daily, and recall PRESETI to automatically play is.
Cloud Disk Sync CMS Management Scripts/LUA Network ~	Gerwal Remote Source Local Target Log Path miniciliand# Defined by PESSIT1 Registrate field
System ~	Eder 2021 / FANERONE 1.000 / Gallery Registrations Key Obj2411E73FDC087

Figure 47: S&F, Local target

• **Path**: defined by the Playlist Path field for PRESET01. This can be changed in the *preset* settings.

7.2.6.4 LOG

ם פכנפו		PLAYERONE
Device Player Presets Events	^	Georgie Drive Store and Forward (rync) Store and Forward (rsync)
Calendar		Store&Forward module lets DEVICE download remote media content to local storage devices (USB/MMC), daily, and recall PRESETT to automatically play it.
Cloud Disk Sync CMS Management		General Remote Source Local Target Log
Scripts/LUA Network	~	/usr/eller/kpps/eller_ssf.sh: line B: dropbearconvert: not found
System	\sim	
∃ Logout		
		SWR RESET
		Edier 2021 / PLAYERONE 1.0010 / Gallery Registration Key 6028411E73FDC087

Figure 48: S&F, Log

• This displays information and activity in relation to the *rsync* syncing process. It is useful for debugging possible server or device configuration problems.

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7.2.7 SCRIPTS / LUA

A *script* is a simple program; a file of instructions written by the user in LUA language (<u>https://www.lua.org/</u>).

Each *script* can be thought of as a script that the player runs; a series of pre-programmed tasks that are run when a certain stimulus is received.

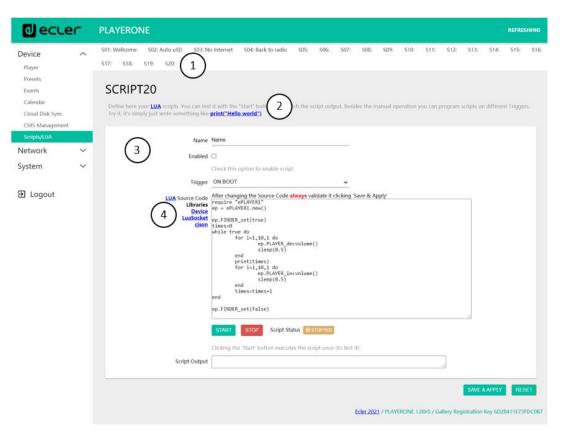


Figure 49: Script example

- 1. PLAYER ONE/ PLAYER ZERO has 20 scripts available, each of which is completely configurable. The default names are: S01, S02...S20. When you click on the name, it will take you to the configuration for that script. The name that appears here for the script can be edited within the script configuration. After this setting is saved in the script, you need to refresh the browser page (F5) in order to display the changes.
- **2.** Useful information for *script* configuration and Lua reference manual.
- **3.** Parameters of each *script* that can be configured:
 - **Name:** name given to the *script* by the user. This name will appear in the header of the Scripts/LUA page.
 - Enable: enables or disables the script.
 - **Trigger:** stimulus that triggers the execution of the *script*. There are different ways to trigger a *script* or automate tasks:

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Trigger	ON BOOT	~
	ON BOOT	
LUA Source Code	ON EVENT	g 'Sav
Libraries	ON PRESET	
<u>Device</u>	ON CALENDAR	
LuaSocket	ON CLOUD DISK SYNC	
<u>cjson</u>	ON LAN	
	ON WAN	
	ON MMC	
	ON USB	
	ON PORTAL	
	ON ERROR	
	for i=1,10,1 do	_

Figure 50: available stimuli

- **ON BOOT**: when the device boots up. Start-up tasks can be configured.
- ON EVENT: when a GPI event (GPI1 or GPI2), or the silence detection event (SILENCE), is triggered
- ON PRESET: after loading a preset. One of the 20 presets has to be selected, and when it is recalled the script will be triggered.
- ON CALENDAR: when a calendar event is triggered. One of the 24 calendar events has to be selected, which will, in turn, trigger the script.
- ON CLOUD DISK: when syncing with a remote server is successfully completed (with sync result "OK"). It must indicate the server it synced with rsync.
- ON LAN: when detecting whether the LAN (local network) is available or not.
- ON WAN: when detecting whether the WAN (Internet access) is available or not.
- ON MMC: when a uSD card is connected or disconnected, and recognized correctly by the device.
- ON USB: when a USB device is connected or disconnected, and recognized correctly by the device.
- ON PORTAL: when syncing with the Ecler Gallery is successfully completed (with sync result "OK").
- ON ERROR: when the error indicated in "Error code" with a code occurs. A table of error codes can be found in the PLAYER ONE PLAYER/ZERO programming library (programmer's appendix).
- LUA Source Code: the text of the script must be entered in this field.

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4. Execution buttons: script execution and stop buttons. The START button runs the *script* immediately, without the need for the programmed stimulus to occur. The *script* must be saved before you click on this button in order for the changes to be applied. This is useful for testing. The STOP button stops the running of the *script*. These functions are especially useful during *script* programming, as they allow you to check the actions executed by each *script* and debug the code.



• **Script output**: output/return value of the *script*. You can write output messages that will appear on this screen. This is useful for debugging scripts.

Script Output	Returned value: 0	
	Figure 52: example of a script return value	

- **Documentation for programmers:** links (blue) available on the device for consultation (Internet connection required):
 - LUA: LUA programming language manual
 - Device: PLAYER ONE/PLAYER ZERO LUA library (programmer's annex).
 Details the objects, functions, and parameters of the library. Interface between LUA and the firmware of the device using the JSON protocol.
 - LuaSocket: LuaSocket library documentation.
 - cjson: LUA CJSON module documentation. Provides JSON support for LUA.

The following chapters show a number of examples of simple scripts. Keep in mind that this PLAYER ONE/PLAYER ZERO programming and customization tool is very powerful, as the same script can execute several tasks which can be linked together, depending on various circumstances, and thus implement an entire logic and intelligence in the way it works.

The only limit is your imagination!



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7.2.7.1 EXAMPLE SCRIPT01:

Write messages on the LCD screen

The following is an example of how to write a message on the LCD. This message has been configured so that, when the player starts up, the message "Hello Ecler" is displayed on the screen for 10 seconds.

Please Note: this is only available for PLAYER ONE. PLAYER ZERO does not have an LCD screen.

d ecle	r	PLAYERONE REFRESHING
Device Player Presets Events Calendar	^	S01: Wellcome S02: Auto uSD S03: No Internet S04: Back to radio S05: S06: S07: S08: S09: S11: S12: S13: S14: S15: S16: S17: S18: S19: S20: SCRIPTO1 Define here your LUA scripts. You can test it with the "Start" button and watch the script output. Besides the manual operation you can program scripts on different Triggers.
Cloud Disk Sync CMS Management		Try it, it's simply just write something like print("Hello world")
Scripts/LUA Network	~	Name Wellcome
System	\sim	Enabled Check this option to enable script
		Trigger ON BOOT
➔ Logout		LUA Source Code Libraries "ePLAVER1" Device "ePLAVER1" LuaSocket sison
		START STOP Script Status @stopPED
		Script Output
		SAVE & APPRY RESET Ecler 2021 / PLAYERONE 1.00r0 / Gallery Registration Key 6D28411E73FDC087
		Figure 35

- require "PLAYER"
- ep = PLAYER.new()
- ep.LCD_print2({line1="Hello",line2="Ecler",center="true",timeout=10})



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7.2.7.2 EXAMPLE SCRIPT02:

Automatically play uSD cards when inserted

There are applications in which the local storage medium will change depending on the user. For example, an activity room in a gym where, for each session, different instructors will change the music. In other words, they will connect their USB device or uSD card to play their content. This can be automated so that users simply have to insert their device into the device, and playback starts automatically. This avoids unauthorised tampering and/or saves them from having to read the manual for the device.

So, the following example *script* automatically plays the uSD card as soon as it is inserted. You could create a *script* to do the same thing with the USB device, by simply changing the trigger and the URL.

d ecte	r.	PLAYERONE REFRESHING
Device Player Presets Events Calendar Cloud Disk Sync CMS Management	^	S01: Welkome S02: Auto uSD S03: No Internet S04: Back to radio S05: S06: S07: S08: S09: S10: S11: S12: S13: S14: S15: S16: S17: S18: S19: S20: S17: S18: S19: S12: S13: S14: S15: S16: S17: S18: S19: S20: S17: S18: S19: S10: S11: S12: S13: S14: S15: S16: S17: S18: S19: S10: S11: S12: S13: S14: S15: S16: S17: S18: S19: S20: S12: S13: S14: S15: S16: S17: S08: S09: S10: S11: S12: S13: S14: S15: S16: S16: S17: S10: S11: S12: S13: S14: S15: S16: S17:
Scripts/LUA		Name Auto uSD
Network	\sim	Enabled 🗹
System	\sim	Check this option to enable script
€ Logout		Trigger ON MMC MMC action PLUG MMC action PLUG LUA Source Code After changing the Source Code always validate it clicking 'Save & Apply' Libraries Pervice ge = ePLYRER.I.net() ep = ePLYRER.I.net() ep = ePLYRER.I.net() Store Store
		Clicking the 'Start' button executes the script once (to test it). Script Output Returned value: 0
		SAVE & APPLY RESET Eder.2021 / PLAYERONE 1.00r0 / Gallery Registration Key 6D28411E73FDC087

Figure 54

- require "PLAYER"
- ep = PLAYER.new()
- ep.PLAYER_open{url="mmc://"}



7.2.7.3 EXAMPLE SCRIPT03:

Messages can be configured for practical uses. The following script displays a "NO INTERNET" message that flashes when the Internet (WAN) connection is lost. It has also been written in such a way that we can use the "blink" function multiple times within the same script. In addition, it loads preset1, which has local audio content stored and set to play (PLAY) when loaded, in order to ensure continuity of the music program.

d ecler		PLAYERONE REFRESHIN	٩G
Device Player	^	S01: Wellcome S02: Auto uSD S03: No Internet S04: Back to radio S05: S06: S07: S08: S09: S10: S11: S12: S13: S14: S15: S1 S17: S18: S19: S20: S17: S18: S19: S20:	516:
Presets Events Calendar Cloud Disk Sync CMS Management		SCRIPT03 Define here your LUA scripts. You can test it with the "Start" button and watch the script output. Besides the manual operation you can program scripts on different Triggers. Try it, it's simply just write something like print: Hello world")	
Scripts/LUA		Name No Internet	
Network	\sim	Enabled 🗹	
System	\sim	Check this option to enable script	
		Trigger ON WAN	
➔ Logout		Network event UNAVAILABLE V	
		<pre>LUA Source Code After changing the Source Code always validate it clicking 'Save & Apply' Libraries</pre>	
		START STOP Script Status @STOPPED	
		Clicking the "Start" button executes the script once (to test it). Script Output Returned value: 0	
		SAVE & APPLY Ecter 2021 / PLAYERONE 1.00r0 / Gallery Registration Key 6D28411E73FDC0	087

Figure 55

```
require "PLAYER"
ep = PLAYER.new()
function blink(text1, text2, nTimes)
       for blink=1,nTimes ,1 do
               ep.LCD_print2({line1=text1, line2=text2, center="true"})
               sleep(0.5)
               ep.LCD_print2({line1=" ", line2=" ", center="true"})
               sleep(0.5)
        end
end
blink("NO", "Internet", 5)
ep.PLAYER_open({preset=1})
```

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7.2.7.4 EXAMPLE SCRIPT04:

Play an Internet radio station when the Internet connection is restored.

The following *script* loads a *preset* when an available Internet connection (WAN) is detected. It can be good to use this in combination with the silence detection event:

The device is playing an Internet radio station, however, due to a network problem, it no longer has access to the radio. After a few seconds without audio, the silence detection event is triggered, and the device starts playing content from the uSD card (back-up music). However, you want the radio that was playing to start up again automatically once the Internet connection is available again.

d ecle		PLAYERONE REFRESHING
Device Player Presets Events Calendar Cloud Disk Sync CMS Management	^	S01: Wellcome S02: Auto uSD S03: No Internet S04: Back to radio S05: S06: S07: S08: S09: S11: S12: S13: S14: S15: S16: S17: S18: S19: S20: SCRIPT04 Define here your LUA scripts. You can test it with the "Start" button and watch the script output. Besides the manual operation you can program scripts on different Triggers. Try it, it's simply just write something like printC'Hello world")
Scripts/LUA Network System	* *	Name Back to radio Enabled Check this option to enable script
Ð Logout		Trigger ON WAN Network event AVAILABLE LUA Source Code After changing the Source Code always validate it clicking 'Save & Apply' LUAS cource Code After changing the Source Code always validate it clicking 'Save & Apply' LUAS cource Topological always validate it clicking 'Save & Apply' LuaSocket require "ePLAYER." gton ep. PLAYER.open({preset=2}) START STOP Stop Script Status
		Clicking the 'Start' button executes the script once (to test it). Script Output
		SAVE & APPLY RESET

Figure 56

require "PLAYER"

ep = PLAYER.new()

ep.PLAYER_open({preset=2})



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7.3 NETWORK

PLAYERONE decler REFRESHING Interfaces Global network options Device \sim Interfaces Network \sim Protocol: Static address Uptime: 7d 0h 36m 34s MAC: 0C:CF:89:21:E6:FD RX: 0 B (0 Pkts.) TX: 4.68 KB (23 Pkts.) IPv4: 192.168.189.1/24 LAN Wireless び (ご言) br-lan RESTART STOP EDIT DELETE System col: DHCP client ➔ Logout WAN Uptime: 7d 0h 36m 30s MAC: 0C:CF:89:21:E6:FD XX: 650.57 MB (3028454 Pkts.) TX: 62.53 MB (568741 Pkts.) IPv4: 192.168.1.9/24 RESTART STOP EDIT th0.2 RESET Ecler 2021 / PLAYERONE 1.00r0 / Gallery Registration Key 6D28411E73FDC08

Allows you to configure the Ethernet and WiFi network interfaces.



- Interfaces: allows parameters to be edited for the wired connection, RJ-45 Ethernet port (LAN/WAN).
- Wireless: allows parameters to be set for the wireless connection, WiFi interface.

Please Note: for detailed information on all network parameters, click on this <u>link</u>.



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7.3.1 CONNECTION VIA RJ-45 CABLE

By default, PLAYER ONE/PLAYER ZERO has automatic network addressing (DHCP). To change to manual addressing (editing network parameters), access the web application and go to the Network/Interfaces menu.

decler		PLAYERONE				
Device	~	Interfaces Global network options				
Network	^	Interfaces				
Interfaces Wireless System	~	LAN a ^{pa} (2 ^{ma} *) br-lan	Protocol: Static address Uptime: 7d (h 36m 34s MAC: DCCF892:1156FD RX: 0 8 (D PKs.) TX: 4.68 KB (22 PKs.) IPv4: 192.168.189.1/24	RESTART STOP LOT DELETE		
➔ Logout		WAN ## eth0.2	Protocol: DHCP client Uptime: 7d 0h 36m 30s MAC:0C:CF992:Lf62H RX: 65057 MB (2028454 Pits.) TX: e2:53 MB (66674 Pits.) IPv4: 192.166.1.9/24	16313AIT 510P (DT 00LETE		
		ADD NEW INTERFACE		\smile		
				SAVE & APPLY + SAVE RESET		
				Ecler 2021 / PLAYERONE 1.00r0 / Gallery Registration Key 6D28411E73FDC087		



1. Network information: checking network parameters and network information

- **Protocol:** DHCP client/static address
- Uptime: connection time
- MAC: MAC address of the device
- **RX:** amount of data received
- TX: amount of data transmitted
- IPv4: IP address of the device

2. Edit network parameters: accesses the Ethernet interface configuration

Press the EDIT button to access the Ethernet interface configuration.

	~	Interfaces Global network options	
Device			
Network	^	Interfaces	
Interfaces Wireless System	~	LAN Uptions: 74 (01) Solid: address Uptions: 74 (01) Solid: 346 #7 (22***) br-lan FXX: 08 (0 PMs) FXX: 08 (0 PMs) FXX: 08 (0 PMs) FXX: 192 (06) 109/124	RESTART STOP EDIT DELETE
➔ Logout		WAN Protocol DHCP diem 200 DES 1000 DES 1000 200 DES 1000 DES 1000 DES 1000 200 DES 1000 DES 1000 DES 1000 200 DES 1000 DES 1000 DES 1000	N) TESTATT STOP LOT DELETE
		ADD NEW INTERFACE	
			SAVE & APPLY + SAVE RESET
			Eder 2021 / PLAYERONE 1.0010 / Gallery Registration Key 6D28411E73FDC

Figure 59 : accessing the network configuration

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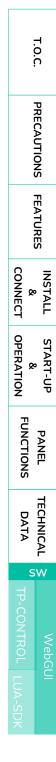
decler

9 ل	ecler	PLAYERONE		REFRESHING
Device	~	Interfaces	lobal network options	
intern	Interfaces » W	/AN		
Wirele Syster	General Settings	Advanced Settings	Physical Settings	
Ð Lo		Status	Device: eth0.2 Uptime: 0h.4m.5s MAG: 0:CF.892.156:FD RX: 422.34.KB RX: 8(12).12.14.13.13.13.13.13.13.13.13.13.13.13.13.13.	
		Protocol	DHCP client V	
		Bring up on boot		
	Hostname to	send when requesting DHCP	PLAYERONE	ESET
			DISME	SS SAVE

Figure 60: editing network parameters

Select *Static address* mode and press the SWITCH PROTOCOL button to edit the network addressing manually.

0	ecler	PLAYERONE					REFRESHING
Device Netwo Interf	Interfaces » W	Interfacer	abal network options				
Syster	General Settings	c c	Physical Settings *** Device: etho.2 Uptine: 01.5m 20s MAC: 0C:CF392:1E6FD PX: 474:14 KB (2565 PHs.) IPV4: 192.168.1.9/24 Static address SWITCH IMROTOCOL	~	-		517
						ERIZET / POATERCINE TOMO / A	DISMISS SAVE







0	ecler	PLAYERONE	REFRESHING UNSAV	ED CHANGES: 1
Device	~	Interfaces GI	obal network options	
Netwo		Interfacer		
Interfac	Interfaces » W	/AN		
System	General Settings	Advanced Settings	Physical Settings	
Đ Log		Status		
		Protocol	Static address 🗸	
		Bring up on boot		
		IPv4 address	192.168.1.9	RESET
		IPv4 netmask	255.255.255.0 •	E73FDC0B
		IPv4 gateway	192.168.1.1 (wan)	
		IPv4 broadcast	192.168.1.255	
	U	se custom DNS servers		
		Pv6 assignment length	disabled •	
			Assign a part of given length of every public IPv6-prefix to this interface	
		IPv6 address	Add IPv6 address +	
		IPv6 gateway		
		IPv6 routed prefix		
			Public prefix routed to this device for distribution to clients.	
		IPv6 suffix		
			Optional. Allowed values: 'eui64', 'random', fixed value like '::1' or '::1:2'. When IPv6 prefix (like 'aducd:') is received from a delegating server, use the suffix (like '::1') to form the IPv6 address ('aducd:') for the interface.	
			DISMISS SA	VE

Configure the network parameters according to your infrastructure:



- IPv4 address: device network address
- IPv4 netmask: subnet mask
- IPv4: gateway (switch/router with Internet access)
- **DNS1**: Domain Name System 1 (optional)
- DNS2: Domain Name System 2 (optional)

Save the changes on the Edit page, and apply them on the Network/Interfaces page.



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7.3.2 POINT-TO-POINT WIRELESS CONNECTION

PLAYER ONE/PLAYER ZERO can establish a point-to-point wireless connection with a WiFi interfaced device (PC, *smartphone*, *tablet*, etc.), either for accessing the web application or for *streaming* via AirPlay/DLNA.

Make sure that the wireless connection is enabled and the device is set to MASTER (Access Point) mode.

	er	PLAYERONE				REFRESHING
Device Network Interfaces Wireless	~	Wireless Overview	MediaT Channel: 11	ek MT76x8 802.11bgr (2.462 GHz) Bitrate: ? Mb	n it/s	RESTART SCAN ADD
System	~	طا dBm	SSID: PL BSSID: 0C:CF:89:21	AYER-WIF Mode: Master :E6:FC Encryption: 01741.	K (CCMP)	DISABLE EDIT REMOVE
Ə Logout		Associated Stations		1		1
		Network	MAC-Address	Host	Signal / Noise	RX Rate / TX Rate
				No information	n available	
						SAVE & APPLY SAVE RESET
					Ecler 2021 / PLAYERO	ONE 1.00r0 / Gallery Registration Key 6D28411E73FDC0B

Figure 63: WiFi interface configuration

In your device's WiFi settings, select your device's WiFi network (factory default: PLAYER-WIFI), and enter the password (0123456789). A point-to-point wireless connection will be established.

•••० Orange 🗢	11:48	56 % 🔳 🔿
Ajustes	Wi-Fi	
Wi-Fi		
PLAYER-WIF	1	₽ 奈 (i)
SELECCIONA UN/	A RED	

Figure 64: WiFi settings on a smartphone



If you have more than one Ecler player in the same system, or you simply want to customize the parameters with which the network is displayed, we recommend changing the SSID and password of the WiFi network of your device(s). To do this, click on the EDIT button and adjust the WiFi network parameters according to your needs. When you have made the changes, save and apply them.

_0€	ecler	PLAYERONE		REFRESHING		
Device Netwo Interfac	Vireless Ne	Wiroloss O twork: Master "PL4	vervlew VYERONE-WIFI* (wlan0)	Current power: 20 dBm 737DC077		
System	General Setu	Advanced Settings				
🔁 Log		Status	Mode: Master SSID: FLAYERONE-WIF1 			
		Wireless network is enabled	DIBAIRE			
		Operating frequency	Mode Channel Width N v 11 (2422 M/xz) v 20 M/z v	RESET		
		Maximum transmit power		E73FDC087		
			Specifies the maximum transmit power the wireless radio may use. Depending on regulatory requirements and wireless usage, the actual transmit power may be reduced by the driver.			
	General Setu	D Wireless Security	MAC-Filter Advanced Settings			
		Mode	Access Point			
		ESSID	MY-PLAYER			
		Network	lan: ஊ 委			
			Choose the network(s) you want to attach to this wireless interface or fill out the custom field to define a new network.			
		Hide ESSID	0			
		WMM Mode	8			
			DISMISS SAV			

Figure 65: editing WiFi network SSID

$\leftarrow \rightarrow$	° C ▲ №	o seguro playerone	local/cgi-bin/luci/admin/network/wireless av av a	f≘ (Invitado 😰) …	••
0 e	cler	PLAYERONE		REFRESHING	G
Device Netwo Interfac Wirelet	↔ Wireless Netw	Wireless O ork: Master "MY	PLAYER" (wlan0)		
System	General Setup	Advanced Settings			
€ Log		Status	Mode: Master SSID: MY-PLAYER -77 db, mBSSID: OCCP8921E8FC Encrystein: mixed WPA/WPA2 PSK (CCMP) Channel: 11 (2-462 GH2) Tx-Power 20 dBm Signal: -47 dBm Noise: 0 dBm Bittate: 1.0 MbD/s1 (Sounty: 00	HEAT	
	Wir	eless network is enabled	DISABLE		
		Operating frequency		RESET	
	N	laximum transmit power	diver default - Current power: 20 dBm Specifies the maximum transmit power the wireless radio may use. Depending on regulatory requirements and wireless usage, the actual transmit power reduced by the driver.	r may be	87
	General Setup	Wireless Security	MAC-Filter Advanced Settings		
		Encryption	WPA-PSK (medium security)		
		Cipher	auto		
		Key 802.11r Fast Transition			
			Enables fast roaming among access points that belong to the same Mobility Domain		
				DISMISS SAVE	

Figure 66: editing WiFi password

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7.3.3 CONNECTING TO A WIFI NETWORK

PLAYER ONE/PLAYER ZERO can connect to the Internet via a home WiFi network to access network addresses, such as Internet radios or remote file syncing services.

d ecu	er i	PLAYERONE				REFRESI	HING
Device Network Interfaces	~	Wireless Overview	MediaTe	k MT76x8 802.11bgn		RESTAR SCAN ADD	
Wireless System	~	🦾 dBm	SSID: PLAY	(2.462 GHz) Bitrate: ? Mbit ERONE-WIFI Mode: Master E6:FC Encryption: WPA PSI		DISABLE EF REMOVE	
∃ Logout		Associated Stations					
		Network	MAC-Address	Host No informati	Signal / Noise	RX Rate / TX Rate	
						SAVE & APPLY + SAVE RESU	EТ
					Ecler 2021	/ PLAYERONE 1.00r0 / Gallery Registration Key 6D28411E73F6	DC087

On the WiFi interface configuration page, click SCAN.

Figure 67

Select your home WiFi network.

Please Note: PLAYER ONE/PLAYER ZERO is only compatible with 2.4GHz wireless networks.

	~	Wireless Overview						
Join	Network: Wir	eless Scan						
	Signal	SSID	Channel	Mode	BSSID	Encryption		
	🚄 - 37 d8m	_2.4	7	Master	04:D9:F5:84:4C:21	WPA2 PSK (CCMP)		NETWORK
	🚄 -49 d8m	_2.4	7	Master	18:31:8F:49:F4:C9	WPA2 PSK (CCMP)		NETWORK
	🚄 -59 d8m	_2.4	7	Master	04:D9:F5:E5:F6:A0	WPA2 PSK (CCMP)	JOB	NETWORK
	🚄 -66 dBm	-3522.d	1	Master	FA:8F:CA:52:7A:AA	None	JOB	NETWORK
	🚮 -78 dBm	_68A8	11	Master	34:57:60:9C:68:AA	WPA2 PSK (CCMP)	JOB	NETWORK
_							STOP REFRES	H DISMISS
						Ecter 2021 / PLAYER	ONE 1.00r0 / Gallery Registra	Son Key 6D28411E73FDC

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Enter the password of the WiFi network you want to connect to and press the SUBMIT button.

0	ecler Playeron	IE	REFRESHING
Device			
Netwo	Window	s Quantiau	
Interta	Joining Network: 2.4	•	
White			
System	Replace wireless configuration	0	
		Check this option to delete the existing networks from this radia.	1. A
3 Log	Name of the new network		
		The allowed characters and L-Z (a-Z) (0-9) and _	
	WPA passphrase		
		Specify the secret encryption key here.	
	Lock to BSSID		
		Instead of joining any network with a matching SSID, only connect to the BSSID (84:09:F5:B4:4C:21.	PANTANT
	Create / Assign firewall-zone		
		Choose the firewall zone you want to assign to this interface. Select unspecified to remove the interface from the associated zone or fill out the custom field to define a new zone and attach the interface to it.	RED FOR COMP.
		CANCEL	

Figure 69

The WiFi network settings are shown below. Press the SAVE button if you do not need to make any additional changes.

Please Note: the operating mode has changed to Client.

0	ecter	PLAYERONE	REFRESHING	UNSAVED CHANGES: 10
Device Netwo Interfac Wireles		Wireless Overview work: Client "2.4" (radio0.network2)		
System	General Setup	Advanced Settings Status Status additional Mode: Client SSID: 2.4 additional Status		- 8
		Interest network is enabled Operating frequency Mode Channel Width Operating frequency N • 11 (2402 Mhz) 20 MHz • Maximum transmit power driver default • - Current power: unknown Specifies the maximum transmit power the wireless radio may use. Depending on regulatory requirements and wireless usage, the act	uai transmit power m	ry be
	General Setup	Wireless Security Advanced Settings Mode Client ESSID		(73/66687
		environ constructing you want to accert to use environments encirable on an our car complex men 40 deciring a new field decides.	05	



d ecter	PLAYERONE				REFRESHING
Device \checkmark Network \land	Wireless Overview				
Interfaces Wireless	👷 radio0	MediaTek MT76x8 802. Channel: 7 (2.442 GHz) Bitrate	11bgn : 65 Mbit/s		RESTART SCAN ADD
System 🗸	a disabled	SSID: MY-PLAYER Mode: 1 Wireless is disabled	daster		ENABLE EDIT REMOVE
ə Logout	🚄 -24 dBm	SSID: Opic_24 Mode: C BSSID: 0C:CF:89:21:E6:FC Encryption: 1	lient WPA2 PSK (CCMP)		DISABLE EDIT REMOVE
	Associated Stations				
	Network	MAC-Address	Host	Signal / Noise	RX Rate / TX Rate
	😤 Client "Ople_2.4" (vilan0)	04:D9:F5:B4:4C:21	7	🚄 -35 dBm	144.4 Mbit/s, 20 MHz, MCS 15, Short GI 65.0 Mbit/s, 20 MHz, MCS 6, Short GI
				1000 2021 / P	SAVE & APPLY • SAVE REPORT

A wireless connection to your WiFi network will be established.



7.4 SYSTEM

In the Settings menu you can make changes as an administrator, such as changing the device name, or the password for accessing the web application, or local media encryption, resetting the device to factory settings, saving backups, updating firmware, etc.

7.4.1 NAME AND TIME

Device name and time sync settings.

	REFRESHIN					PLAYERONE	.er	ി ടെപ
Security Backup, Restore and Firman SUSAMAC Series Register Reboot 2 Logout			or the timezone.	your device like its hostnan			~	etwork
Logout				19/8/2021 16:59:34 SYNC WITH BROWSER PLAYERONE	Local Time Hostname	General Settings	and Firmwar	Security Backup, Restore a USB/MMC Setting Register
	SAVE RESET	SAVE & ASPLY • SAVE & ASPLY • SAVE & ASPLY • SAVE & ASPLY • SAVE RONE 1.000 / Callery Registration Key I						Logout



7.4.1.1 GENERAL SETTINGS

- Local Time: setting the time on the device. You can sync it with the browser time (Sync with Browser), and/or you can sync it via NTP server: recommended if you have an Internet connection and you are using calendar-triggered events.
 Please Note: syncing with an NTP server means you don't have to worry about summer and winter time changes.
- Hostname: device name. Name that will be displayed on other services such as AirPlay, RePLAYER control application or mDNS. By default, this is "playerone" for PLAYER ONE and "playerzero" for PLAYER ZERO. Enter "hostname.local/" in your browser's search bar to access the device's web GUI: playerone.local/ or playerzero.local/ by default.
- **Timezone**: setting the time zone. It is important to set this correctly if you are managing calendar events.

7.4.1.2 TIME SYNCHRONIZATION

d ecler	PLAYERONE REFRESHING
Device \checkmark Network \checkmark System \land	Name and time Here you can configure the basic aspects of your device like its hostname or the timezone.
Name and time Security Backup, Restore and Firmwar USB/MMC Settings Register	General Settings Time Synchronization Enable NTP client Provide NTP server Use DHCP advertised servers
Reboot	NTP server candidates 1.opermut pool.ntp.org 2.opermut pool.ntp.org 3.opermut pool.ntp.org 2
	SAVE & APPLY • EAVE RESET

Figure 73: Name and time, Time synchronization

Enable/disable time syncing with an NTP server. This also allows you to manage the candidate servers for syncing.

Please Note: PLAYER ONE/PLAYER ZERO has an internal clock that means that you won't lose the time setting if it is not connected to the mains or not synced with an NTP service. However, please note that this clock has an accuracy of ±1 minute/month.

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7.4.2 SECURITY

On this page, changes can be made to prevent unauthorized personnel from tampering with the player.

7.4.2.1 WEB PASSWORD

Password for accessing the web application. By default, ecler.

Please Note: the user is always **root**. This cannot be changed.

decler	PLAYERONE
Device ~ Network ~ System ^ Name and time	WEB Panel Replayer WEB Password Changes the WEB password for accessing the device
Security Backup, Restore and Firmwar USB/MMC Settings Register Reboot	Password •••• • Repeat password •••• •
Đ Logout	Ecter 2021 / PLAYERONE 1.00r0 / Gallery Registration Key 6D28411E73FDC087

Figure 74

d ecler

7.4.2.2 FRONT PANEL FUNCTIONS

Setting the front panel button lock to prevent unauthorised tampering or changing of administrator settings. **O**nly available on PLAYER ONE.

decler	PLAYERONE
Device 🗸 🗸	WEB Panel Replayer
Network ~	Front Panel Functions
System ^ Name and time Security Backup, Restore and Firmwar	Device front panel functions LOCK settings UNLOCK ALLs allows access to User and Admin functions UNLOCK VER allows access to User functions (Admin functions are locked) LOCK ALL lock access to all User and Admin functions
USB/MMC Settings Register Reboot	LOCK mode LOCK ALL VUNLOCK Password 2021
➔ Logout	8 characters long [0-9 A-Z . + •]
	SAVE RESET



• LOCK mode: selection of the lock mode

 \circ UNLOCK ALL: unlocks all buttons on the front panel.

• **UNLOCK USER**: locks access to the device configuration menu (administrator functions), allowing the use of all other functionalities.

 \circ LOCK ALL: locks all buttons on the front panel.

• UNLOCK Password: Password for unlocking. If the device is in lock mode, once you have entered the password, you will have a window of time in which to use the device. After you stop using it, the device will automatically lock the controls again.



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7.4.2.3 REPLAYER

4-digit PIN for accessing the device via the RePLAYER control application. Click on this <u>link</u> to find all the information and documentation related to the control application.

decler	PLAYERONE
Device ~ Network ~ System ^ Name and time	WEB Panel Replayer Replayer PIN Replayer is the smartphone app to control DEVICE friendly. It required to set the PIN Download <u>Android</u> version or IOS version
Security Backup, Restore and Firmwar USB/MMC Settings Register Reboot	PIN 1234 4 digits long [0000-9999]
€ Logout	Edier 2021 / PLAYERONE 1.00r0 / Gallery Registration Key 6D28411E73FDC087

Figure 76

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7.4.3 BACKUP, RESTORE AND FIRMWARE

Manage backups of your device and retrieve configuration files, and also update the firmware version.

decler	PLAYERONE				
Device ~ Network ~	Backup, Restore and Firmware				
System ^	Backup				
Security Backup, Restore and Firmware	Backup type ADMIN SETTINGS 🗸				
USB/MMC Settings	Select ONLY USER SETTINGS to export only PLAYER, PRESETS, EVENTS, CALENDAR, CLOUD DISK, CMS, and SCRIPTS settings				
Register Reboot	Save backup SAVE				
Rebool	This action will save the backup file into your default Downloads folder in your computer, tablet, etc.				
➔ Logout	Save backup to local storage SAVE TO				
	Select an Device local storage filename path for the settings file (<u>kgc</u> + untr/msecure.conta)				
	Restore				
	To restore configuration files, you can upload a previously generated backup archive here.				
	Restore backup Elegir archivo No se ha seleccionado ningún archivo RESTORE				
	This action will restore the backup file from your computer, tablet, etc. Restore backup from RESTORE FROM				
	Select a revolution of https://type) or Device local storage filename path for the settings file (gg; uni //m_bacup_contg)				
	Restore default settings PESTORE				
	Firmware				
	Select a compatible firmware file (firmware_FLAYER_v[n]_fn]_bin) to replace the running firmware. Mark Keep settings to retain the current configuration				
	Keep settings 🛛 🖸				
	Flash firmware Elegir archivo No se ha seleccionado ningún archivo FLASH				
	This action will flash new firmware from your computer, tablet, etc. Flash firmware from LLSHIFROM				
	Select a remote un path (http:// or https:// type) or Device local storage filename path for the settings file (<u>pg; mc://thmaews/inservic_scans.sc</u>)				
	Ecter 2021 / PLAVERONE 1.00r0 / Gallery Registration Key 6028411E73FDC087				

Figure 77: System. Backup, restore and firmware

7.4.3.1 MAKE BACKUPS

Backup type	ADMIN SETTINGS V
	Gelect ONLY USER SETTINGS to export only PLAYER, PRESETS, EVENTS, CALENDAR, CLOUD DISK, CMS, and SCRIPTs settings
Save backup	SAVE
	This action will save the backup file into your default Downloads folder in your computer, tablet, etc.
Save backup to local storage	SAVE TO
	Select an Device local storage filename path for the settings file (e.g.: ub://wy_backup.config)



- Backup type: type of backup.
 - **ADMIN SETTINGS**: saves all settings (both administrator and user settings).
 - **USER SETTINGS**: only saves the user settings.
 - **GALLERY SETTINGS**: saves the settings that are compatible with the Ecler Gallery platform.



	ADMIN SETTINGS	USER SETTINGS	GALLERY SETTINGS
Player	\checkmark	✓	✓
Presets	\checkmark	\checkmark	✓ *
Calendars	\checkmark	\checkmark	×
Events	\checkmark	\checkmark	\checkmark
Scripts	\checkmark	\checkmark	\checkmark
Store and Forward	\checkmark	×	\checkmark
Front panel lock settings	\checkmark	×	×
Network settings	\checkmark	×	×
System: Name, Time & NTP	\checkmark	×	×
Player Profile	\checkmark	×	×
Encryption	\checkmark	×	×
Web password	\checkmark	×	×

*Partial: no playlist

Figure 78: types of backup or configuration files

- **Save Backup:** generates a backup that will be stored in the download folder which is configured in your browser.
- Save backup to local storage: generates a backup that will be saved to the specified local storage address, with the specified name. For example, "mmc://backups/copy1.config" (example of a folder on a uSD card inserted in the player)

7.4.3.2 RESTORE BACKUPS AND FACTORY SETTINGS

Restore		
To restore configuration files, you can upload a previously generated backup archive here.		
Restore backup	Elegir archivo No se ha seleccionado ningún archivo RESTORE	
	In action will restore the backup file from your computer, tablet, etc.	
Restore backup from	RESTORE FROM	
	Select a remote url path (http:// or https:// type) or Device local storage filename path for the settings file (e.g.; usb://my_backup.config)	
Restore default settings	RESTORE	



- **Restore backup:** restores a configuration file (or backup) hosted on your computer, *tablet*, server, etc.
- **Restore backup from:** restores a configuration file hosted on one of the device's storage media, USB or uSD. You can also restore a file hosted in a remote location, URL address.
- **Restore default settings:** restores the device to factory defaults. Administrator and user settings will be lost.

Please Note: if encryption is being used and you restore it to factory settings or restore an administrator file, the content on the storage media will not be able to be recovered.

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7.4.3.3 FIRMWARE UPDATE

Firmware	
Select a compatible firmware file (firmware_PLAYER_v[n]_[un]_r[n].bin) to replace the running firmware. Mark Keep settings to retain the current configuration
Keep settings	
Flash firmware	Elegir archivo No se ha seleccionado ningún archivo FLASH
	Inis action will flash new firmware from your computer, tablet, etc.
Flash firmware from	FLASH FROM
	Select a remote url path (http:// or https:// type) or Device local storage filename path for the settings file (a_g; mc://simmares/filmmare_EFLAVER_v2_g9r5s.bin)



- **Keep Settings:** keeps the device's current settings. If you want to return to factory settings after updating the firmware, deselect this box. It is selected by default.
- Flash Firmware: updates via a firmware file hosted on your computer, *tablet*, server, etc.
- Flash Firmware from: updates via a firmware file hosted on one of the device's storage media, USB or uSD. You can also use a file hosted in a remote location with a URL address.

•

7.4.4 USB/MMC SETTINGS

This allows you to view the space used on the local storage media and manage the encryption function, if desired: for reasons of **security**, data **protection**, to protect the music content stored on the uSD card or USB device, etc. In this way, if the local storage media is removed without authorisation, the data will still be protected, as it will only be readable by the device that encrypted it.

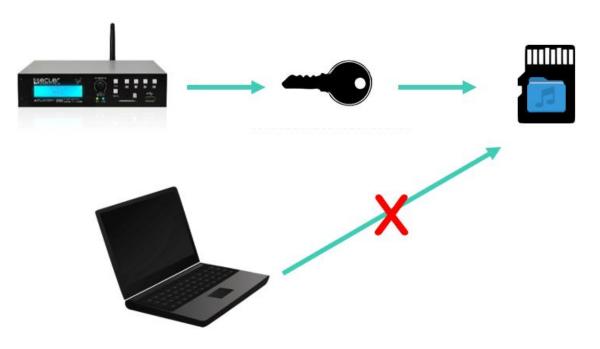


Figure 81: encryption concept



It operates as follows:

- **1.** The device encrypts the media, formatting the external drive. This process **deletes all content** from the memory of the uSD or USB device.
- **2.** This process **may take several minutes**. "FORMATTING..." is displayed on the LCD screen for the duration of the process (PLAYER ONE only).
- **3.** At the end of the process, "NO FILES" will be displayed on the LCD screen, indicating that it has been **formatted correctly** and there are no audio files on the external media (PLAYER ONE only).
- **4.** The external drive is now ready to download content using the **"Cloud disk sync"** tool **Store and Forward (rsync)**.

Please Note: once this feature is disabled, if you re-enable it, you will need to restart the process described above.

Some **considerations** with regards to the encryption function:

- The encryption process is **destructive**, as formatting the external drive deletes all the files on it.
- Once this function is enabled, any other external device (uSD or USB) that is
 inserted into the corresponding port, and which does not contain the encryption
 keys, will be encrypted and therefore all files will be deleted. As a result, it will
 not be able to play content other than that which is hosted on the media that the
 device itself has encrypted.
- The external storage media **cannot be read by any other device** (including other PLAYER ONE/PNeeLAYER ZERO) that does not have the encryption keys.
- The content can be read by the device that encrypted it, **as long as** the encryption option **is not changed**. That is, if the encryption function is disabled, the device will stop using this function and therefore will be able to read any external storage media. However, it loses the keys to the previously encrypted external media, and you will therefore not be able to play the content stored on them.

Please Note: encryption is a tool that is **designed to be used in conjunction with** content syncing **tool**: "Store and Forward" (rsync). The external storage media, as it is encrypted, cannot be read or written to (copy contents) by any device, such as a computer. Therefore, the only device capable of copying content onto the media is the player that encrypted it. The "Store and Forward" (rsync) tool make this possible.

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decler	PLAYERONE
Device ~ Network ~ System ^	USB/MMC parameters Enter here your USB/MMC parameters like encryption. Warning: applying changes will remove all data on USB or MMC
Name and time Security	USB device parameters
Backup, Restore and Firmware US8/MMC Settings Register Reboot	Encryption enabled APPLY ENCRYPT NOW Encrypting this device will format the USB device This operation could take a leng time (USB FORMATING) Once in induct. NO FLES with the displayed.
3 Logout	Disk Urage [219MB / 15272MB (199)
	MMC device parameters
	Encryption enabled APRLY ENCIRPT NOW Encrypting this device will fermat the MMC device
	This operation could take a long time (MMCFORMATING) Once finitione, NO FLES will be displayed. Disk usage 24ME /7404ME CH0
	SAVE RESET
	EDELOVEL/ PEAROURE 1.0000 / Gallery registration key subovi 1/2 articular

Figure 82: USB/MMC Settings

- **Encryption enabled:** enables/disables media encryption, USB or uSD. If you save this setting, the device will encrypt the disk the next time the drive is mounted, either when the media is inserted or when the device is rebooted.
- Apply Encrypt now: immediately encrypts the media.
- **Disk Usage**: capacity of the storage media in MB, and percentage of the storage media that is in use (%), uSD card and USB device respectively. If no media is found, "NO DISK" will be displayed on the LCD screen (PLAYER ONE only)

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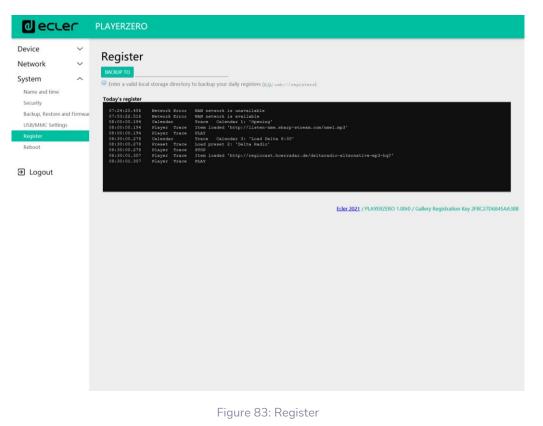


7.4.5 REGISTER

The **register** allows you to keep a **detailed record of the** device's **activity**. This information can be useful for troubleshooting, monitoring device activity, checking for correct programming, etc.

The **lines in the register** contain information about actions performed by the device, errors and/or announcements, along with time information (when different events occur). The register page displays a list of the register lines reported by the device.

The device register is updated daily, and also when it is rebooted. The previous register lines are deleted. However, a copy of each day's register can be kept on local storage media. This feature allows you to view the register for several days.



• **Backup to:** allows you to save a copy of the register file for each day to a local storage medium. The path must be specified ("usb://registers", for example).



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7.4.6 REBOOT

Allows you to reboot the device from the web application. Click the PERFORM REBOOT button to force the player to reboot.

	PLAYERONE
Device Network System Name and time Security Backup, Restore and Firmwa USB/MMC Settings Register Logout	Reboots the operating system of your device PERFORM REBOOT Edge 2021 / PLAYERONE 1.00r0 / Gallery Registration Key 5D28411E73FDC087

Figure 84: Reboot



7.5 SSH SERVER CONFIGURATION FOR STORE & FORWARD (RSYNC)

The Cloud Disk Sync module, Store and Forward, on the PLAYER ONE/PLAYER ZERO allows the device to download remote audio content to local storage media (USB/uSD). When active, it daily checks a remote location that hosts audio content, compares this content with the current content stored on its local media (USB/uSD) and if necessary (if differences are detected), synchronises the local content so that it is an exact copy of the remote content. This is a safe method of playing content with the device during working hours (during the day), storing it on a local media without the risks associated with real-time streaming.

Store and Forward utility for synchronizing music content remotely uses rsync (Remote Sync) tool for it.

In this guide, it is shown an example of how to configure a **SSH server using Linux** (Ubuntu Desktop 18.04.2 LTS). It is important, that all machines, server and clients, are connected to the same network (LAN/Intranet).

Important note: for configuring Store and Forward cloud-based, would be necessary to hire a VPS (Virtual Private Server) service in order to get a Public IP and access to the SSH server over the Internet.

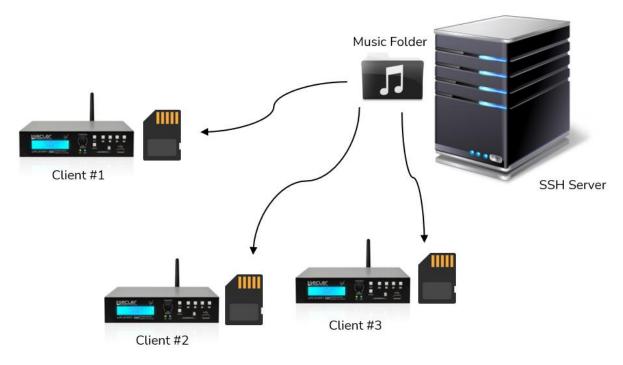


Figura 85: S&F synchronization

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7.5.1 CONTENT GROUPS

A content group is a group if devices that synchronize the same audio content using the Store and Forward utility. It is necessary to create a different user for each content group. Thus, a device assigned to a content group can access only to the content assigned to that group, and not to other content. This procedure states for security. Each content group will manage its private key to access assigned content in the server that hosts all the music, advertisements, voice messages, etc.

Each content group, or user, can have associated multiple connections at the same time. The maximum number of simultaneous connections will depend on the power of the hardware (server).

So, we will be creating as many content groups, or users on Linux, as contents (music folder e.g.) we want to manage.

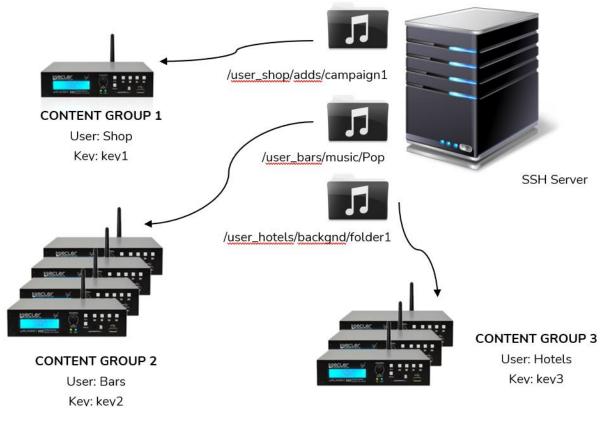


Figura 86: content groups

For a simple configuration, it is possible to create a single user, so, every device can access to its content using the same user and key. It is skipped security level in this configuration. A skilled user could configure the Store and Forward using the embedded web server in the player (changing the folder assigned to it), in order to access to any content in the SSH server, since the key is known.

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It is recommended to create a user per content group for professional applications in which the same SSH server hosts content for different companies. However, if the final user is generating its own content, a single user would be enough.

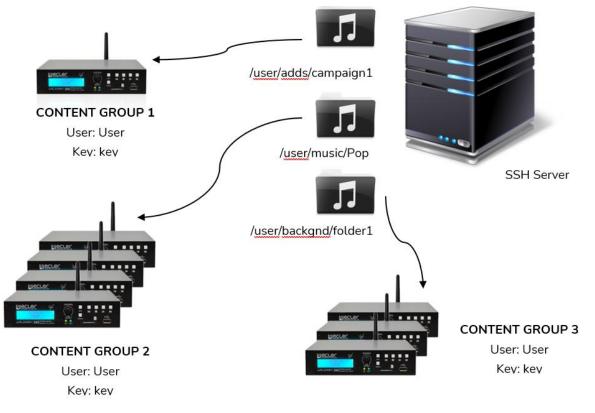


Figura 87: single user

7.5.2 INSTALLING SSH ON LINUX

First of all it is necessary to install the SSH package on Linux. Open a terminal and type:

sudo apt-get install ssh

You can open a terminal by using the shortcut {**ctrl + alt + T**}.

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7.5.3 CREATING USERS ON LINUX

There will be created as many users as content groups have to be managed. To add a new user, type:

sudo adduser <new_user_name>

Where <new_user_name> stands for the name you want to give to the content group, for example:

ecler@ecler: ~
File Edit View Search Terminal Help
ecler@ecler:~\$ sudo adduser hotels Adding user `hotels' Adding new user `hotels' (1001) Adding new user `hotels' (1001) with group `hotels' Creating home directory `/home/hotels' Creating home directory `/home/hotels' Copying files from `/etc/skel' Enter new UNIX password:
Is the information correct? [Y/n] y ecler@ecler:~\$

Figura 88

Now, login as the new user:

su <user_name>

And enter the password introduced in the step before.

In this example:

su hotels

hotels@ecler: /home/ecler	
File Edit View Search Terminal Help	
<pre>rhe coll view Seatch remnial map ccler@ccler:~\$ sudo adduser hotels Adding user `hotels' Adding new group `hotels' (1001) Adding new group `hotels' (1001) with group `hotels' Creating home directory `/home/hotels' Copying files from `/etc/skel' Enter new UNIX password: Retype new UNIX password: passwd: password updated successfully Changing the user information for hotels Enter the new value, or press ENTER for the default Full Name []: Room Number []: Work Phone []: Other []: Is the information correct? [Y/n] y ecler@ccler:~\$ su hotels Password: hotels@ecler:/home/ecler\$</pre>	

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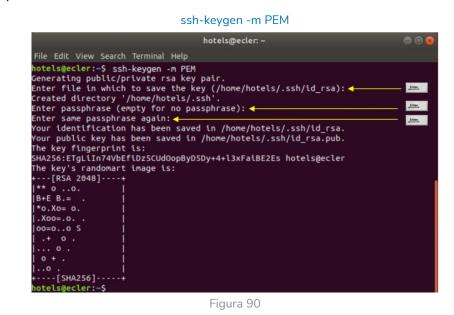


7.5.4 GENERATING SSH KEYS

Before generating the SSH keys, **it is necessary to go first to the home folder of the new user**. To do this:

 cd

Then use the following command to generate the keys and press enter to each question showed up:



Add the public keys to the authorized keys. Use the following command:

cat .ssh/id_rsa.pub >> .ssh/authorized_keys

Display the private key you will need to introduce in the PLAYER's Store and Forward configuration page:

cat .ssh/id_rsa	
hotels@ecler: ~	00
File Edit View Search Terminal Help	
<pre>File Edit View Search Terminal Help Copy from hotels@ecler:\$ cat .ssh/id_rsa.pub >> .ssh/authorized_keys hotels@ecler:\$ cat .ssh/id_rsa hotels@ecler:-\$ cat .ssh/id_rsa hotels@ecler:hotels@ecler:hotels</pre>	
hotels@ecler:~\$	

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7.5.5 ADDING AUDIO CONTENT TO THE SSH SERVER

The next step is to place the correct audio content in the SSH server for each specific user or content group. Thus, it will be created a folder inside the home directory of each content group:

sudo cp -r <path_with_content> <path_to_place_it>

In this example, it will be copied the audio content in directory

sudo cp -r /home/ecler/sandf/hotels /home/hotels

Notice that in directory /home/ecler/sandf/ it is storage all the different audio content, for each content group or user, organized in folders.

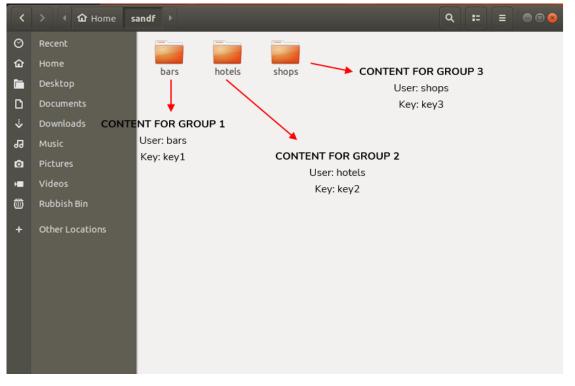


Figura 92

Copy the new directory created <u>home/hotels/hotels</u>. It is the folder where audio contents are storage in the host and need to be copied into PLAYER ONE/PLAYER ZERO S&F's configuration page.



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7.5.6 CONFIGURIND THE REMOTE SOURCE IN THE PLAYER

Finally, it can be configured the remote source (SSH server) in the S&F application.

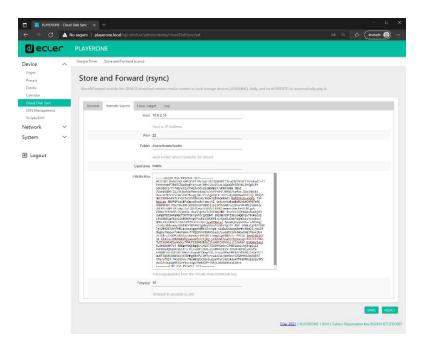
• Host: is the IP of the SSH server. To check it you can type on the Terminal:

ifconfig

ecler@ecler: ~	0
File Edit View Search Terminal Help	
ecler@ecler:~\$ ifconfig	
enp0s3: flags=4103<0P,BEQADCAST,RUNNING,MULTICAST> mtu 1500 inet 10.0.2.15 metmask 255.255.255.0 broadcast 10.0.2.255 inet& fe80::a944:b724:7e2f:3f7 prefixlen 64 scopeid 0x20 <lin ether 08:00:27:36:08:13 txqueuelen 1000 (Ethernet) RX packets 3109 bytes 2947550 (2.9 MB) RX errors 0 dropped 0 overruns 0 frame 0 TX packets 1493 bytes 182308 (182.3 KB) TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0</lin 	ık>
<pre>lo: flags=73<up,l00pback,running> mtu 65536 inet 127.0.0.1 netmask 255.0.0.0 inet6 ::1 prefixlen 128 scopeid 0x10<host> loop txqueuelen 1000 (Local Loopback) RX packets 376 bytes 35340 (35.3 KB) RX errors 0 dropped 0 overruns 0 frame 0 TX packets 376 bytes 35340 (35.3 KB) TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0</host></up,l00pback,running></pre>	
ecler@ecler:~\$	



- Port: Port of the SSH server. 22 (by default)
- Folder: the directory inside the SSH server with the audio content to sync
- Username: user or name of content group
- Private key: key generated for the user or content group





This configuration is the same for every device in the content group.

Repeat steps 3 to 6 for every content group you want to configure for Store & Forward.



THIRD-PARTY CONTROL PROTOCOL

PLAYER ONE- JSON Commands



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8. TP-CONTROL PLAYER JSON Commands PRODUCT OVERVIEW

JSON (JavaScript Object Notation) is a lightweight data-interchange format that allows PLAYER ONE to communicate with third-party devices and platforms, such as EclerNet Manager. JSON is a text format that is completely language independent but uses conventions that are familiar to programmers of the C-family of languages. Visit the official website for more information: <u>https://www.json.org</u>

- The communication with can be established using Ethernet or WiFi and the TCP/IP transport protocol, always by means of the **2003 TCP port**.
- To check IP address, hold ENTER button for 2-3 seconds to enter admin menu.
- To let some control systems (like CRESTRON®, EXTRON®, AMX®, RTI®, VITY®, MEDIALON®, etc.) process the messages more easily, PLAYER ONE allows to the end of each message with a CR (\n) -line feed, character 10-.
- All commands answer {"result":true} (success) or {"result":false} (something failed)

8.1 PLAYER COMMANDS

SET PLAYER STEREO/MONO

```
Mono mode
{"jsonrpc":"2.0","method":"Player.Stereo","Stereo":false}
Stereo mode
{"jsonrpc":"2.0","method":"Player.Stereo","Stereo":true}
```

SET PLAYER FADE

```
No fade
{"jsonrpc":"2.0","method":"Player.Fade","Fade":0}
Cross Fade
{"jsonrpc":"2.0","method":"Player.Fade","Fade":1}
Fade
{"jsonrpc":"2.0","method":"Player.Fade","Fade":2}
```

SET PLAYER MODE

Player mode Sequential
{"jsonrpc":"2.0", "method":"Player.Mode", "PlayMode":0}
Player mode Random
{"jsonrpc":"2.0", "method":"Player.Mode", "PlayMode":1}

SET PLAYER REPEAT

Play all
{"jsonrpc":"2.0","method":"Player.Repeat","Repeat":0}
Play one
{"jsonrpc":"2.0","method":"Player.Repeat","Repeat":1}

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```
Repeat all
{"jsonrpc":"2.0","method":"Player.Repeat","Repeat":2}
Repeat one
{"jsonrpc":"2.0","method":"Player.Repeat","Repeat":3}
```

GET SHORT PLAYER INFORMATION

```
{"jsonrpc":"2.0","method":"Player.GetStats"}
{"title":"Brian Hyland - Sealed With a
Kiss","counter":"19:30","txtSource":"NET","status":1}
```

GET FULL PLAYER INFORMATION

```
{"jsonrpc":"2.0","method":"Player.GetStatsEx"}
{"title":"Elvis Presley -
Judy","counter":"07:02","txtSource":"NET","status":1,"SourceList":
["","MMC","USB UNAVAILABLE","DLNA","AIRPLAY","JVL
PLAYLIST","MUSICUP"],"source":6,"preset":1,"volume":100,"txtVolume":"0dB",
"stereo":1,"repeat":
2,"playmode":0,"fade":1,"bootpreset1":0,"sp":1,"bitrate":"128","duration":
"--:--","freq":"44.1","playlist_index":" 0006 / 0056"}
```

PLAYER ADD NEXT PLAYLIST ITEM

With this function user can manage device playlist simply inserting next item before the end of current item.

set next item to "next_item.mp3"

```
{"jsonrpc":"2.0","method":"Player.QueueNextElem","url":"mmc://next_item.mp
3"}
```

PLAYER INSERT PRORITY ITEM

With this function user can insert a priority item that will be played "over" the actual playing item. Current playing item will be fade.

set next item to "priority_item.mp3"

```
{"jsonrpc":"2.0","method":"Player.PrioritySetElem","url":"usb://priority_i
tem.mp3"}
```

PLAYER PLAY

If the player is paused or stopped use this function to start current loaded item reproduction, otherwise the player is paused.

{"jsonrpc":"2.0","method":"Player.Play"}

PLAYER STOP

{"jsonrpc":"2.0","method":"Player.Stop"}

PLAYER NEXT

```
{"jsonrpc":"2.0","method":"Player.Next"}
PLAYER PREVIOUS
```

{"jsonrpc":"2.0","method":"Player.Prev"}

INCREMENT VOLUME

Increment volume just one dB
{"jsonrpc":"2.0", "method":"Player.Volume", "Action":"inc"}

DECREMENT VOLUME

```
Decrement volume just one dB
{"jsonrpc":"2.0", "method":"Player.Volume", "Action":"dec"}
```

SET VOLUME

Param volume is expressed in %. To set volume to 50% use next command.
{"jsonrpc":"2.0", "method":"Player.Volume", "Volume":50}

OPEN PLAYLIST URL

Url param must be any valid device url.
{"jsonrpc":"2.0","method":"Player.Open","Url":"http://50.7.181.186:8060"}

OPEN PRESET INDEX 10

Preset param must be a valid preset index 1 to 20
{"jsonrpc":"2.0","method":"Player.Open","Preset":10}

OPEN SOURCE INDEX 4 AIRPLAY (FROM AVAILABLE SOURCES LIST)

Source must be a valid player source index. Please check "Get of list available sources" to know all valid sources. {"jsonrpc":"2.0", "method":"Player.Open", "Source":4}

GET LIST OF AVAIABLE SOURCES

This command returns the list of available sources.
{"jsonrpc":"2.0", "method":"Source.GetList"}
{"SourceList":["", "MMC", "USB UNAVAILABLE", "DLNA", "AIRPLAY", "ROCK
80s", "DISCO
80s"]}

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8.2 CONFIGURATIONS COMMANDS

RESET DEVICE SETTINGS

Restore device factory default settings. All your settings will be lost.
{"jsonrpc":"2.0", "method":"Settings.Reset"}

RESTORE DEVICE SETTINGS FROM URL

Restore device settings to values in url file.

{"jsonrpc":"2.0","method":"Settings.Restore","url":"<u>http://ecler.com/my_pl</u> ayer_config.config"}

BACKUP CURRENT DEVICE CONFIGURATION

Backup device settings to url. Available configurations: user, admin or gallery.
{"jsonrpc":"2.0", "method":"Settings.Backup", "url":"mmc://backups/gim.confi
g", "user":"admin"}

GETTING DEVICE VARIABLE VALUE

This function returns a device variable value. Please check the Player LUA manual in order to check all the interface.settings.variable values.

In order to retrieve preset01.settings.bname (preset name) user should send next command to the PLAYER ONE:

{"jsonrpc":"2.0","method":"CFG.get","interface":"preset01","section":"sett
ings","variable":"bname"}

{"value":"AFTERNOON PRESET"}

SETTING DEVICE VARIABLE VALUE

This function set a device variable value. Please check the Player LUA manual in order to check all the interface.settings.variable values.

In order to set preset01.settings.bname (preset name) user should send next command to the PLAYER ONE:

{"jsonrpc":"2.0","method":"CFG.set","interface":"preset01","section":"sett
ings","variable":"bname","value":"MIDNIGHT PRESET"}

STORE CHANGES IN DEVICE INTERNAL MEMORY

This function stores all interface variables to the internal device memory. Should be called after set all the changes. PLAYER ONE must reload the data using <u>reload functions</u>. {"jsonrpc":"2.0", "method":"CFG.commit", "interface":"preset01"}



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8.3 PRESET COMMANDS

Preset variables for GFG.get and CFG.set. Please check Player LUA manual._Preset variables.

RELOAD PRESET

Reload indicated preset index. Index should be a valid preset index 1..20. Must be called after modifiying preset variables and call commit command {"jsonrpc":"2.0", "method": "Preset.Reload", "Index":1}

8.4 EVENT COMMANDS

Event variables for GFG.get and CFG.set. Please check Player LUA manual. Event variables.

RELOAD EVENT

Reload indicated event. Name should be: GPI1, GPI2 or SILENCE. Must be called after modifying event variables and call commit command.

{"jsonrpc":"2.0","method":"Event.Reload","Name":"GPI1"}

8.5 CALENDAR COMMANDS

Calendar variables for GFG.get and CFG.set. Please check Player LUA manual. Preset variables

RELOAD CALENDAR

Reload indicated calendar. Calendar index should be a number 1..24. Must be called after modifying calendar variables and call commit command. Reload calendar 24 example: {"jsonrpc":"2.0", "method": "Calendar.Reload", "Index":24}

8.6 STORE AND FORWARD COMMANDS

SAF variables for GFG.get and CFG.set. Please check Player LUA manual. SAF variables

RELOAD SAF

Reload SAF configuration. Must be called after modifing SAF variables and call commit command.

{"jsonrpc":"2.0","method":"SAF.Reload"}



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8.7 SCRIPT COMMANDS

Script variables for GFG.get and CFG.set. Please check Player LUA manual. Script variables.

RELOAD SCRIPT

Reload script configuration. Index should be script index 1 to 20. Must be called after modifying Script variables and call commit command. Reload script 7 example: {"jsonrpc":"2.0", "method":"Script.Reload", "Index":7}

EXECUTE SCRIPT 6

{"jsonrpc":"2.0","method":"Script.Command","Index":6,"Command":"Start"}

KILL SCRIPT 3

{"jsonrpc":"2.0","method":"Script.Command","Index":3,"Command":"Stop"}

QUERY SCRIPT 11 STATUS

```
{"jsonrpc":"2.0","method":"Script.Status","Index":11}
{"status":"Idle"}
```

8.8 REGISTER COMMANDS

ADD REGISTER LINE

Add line to device LOG. Possible line values are: Trace, Warning, Error. Add a warning line example: {"jsonrpc":"2.0","method":"Device.Log","Severity":"Trace","Message":"This is a warning message"}

8.9 DEVICE COMMANDS

DEVICE REBOOT

{"jsonrpc":"2.0","method":"Device.Reboot"}

GET DEVICE VERSION

```
{"jsonrpc":"2.0","method":"Device.GetVersion"}
{"version":"3.04r0"}
```

DEVICE UPDATE FIRMWARE

With this function user could update device firmware to an specific version. User must provide firmware url. Device setting will be saved.

{"jsonrpc":"2.0","method":"Device.Update","url":"https://www.ecler.com/new_f
irmware.bin"}

DEVICE BOOT CONFIG COMMAND

Available BootPreset1 options are: 1 - PRESET1, 2 - keep status
{"jsonrpc":"2.0", "method":"Device.BootPreset1", "BootPreset1":2}

DEVICE GET MAC

```
{"jsonrpc":"2.0","method":"Device.GetMac"}
{"mac":"32 41 41 20 40 42"}
```

DEVICE GET GALLERY REGISTRATION KEY

```
{"jsonrpc":"2.0","method":"Device.GetRegkey"}
{"regkey":"2E1BB146B2DB2WA1"}
```

8.10 PANEL COMMANDS

PANEL SET LOCK SETTINGS

Set panel Lock to "UNLOCK ALL" "UNLOCK USER" "LOCK ALL". Set panel password to Pass.

{"jsonrpc":"2.0","method":"Device.Panel","Lock":"LOCK ALL","Pass":"1234"}

PANEL GET LOCK SETTINGS

{"jsonrpc":"2.0","method":"Device.GetPanel"}
{"Lock":"UNLOCK ALL","Pass":""}

FINDER COMMANDS

Start/stop finder operation
{"jsonrpc":"2.0", "method":"Device.Finder", "Finder":true}

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Print text on device frontal display. Two lines are available and aligned centre if Centre variable is true. Is possible to specify the display timeout in seconds.

{"jsonrpc":"2.0","method":"Device.Print","Line1":"Hi","Line2":"Bye","Cent
er":true,"Timeout":3}

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9. PLAYER LUA SDK Introduction

PLAYER is a Lua extension library that acts as interface between LUA and PLAYER firmware using the well-known PLAYER JSON protocol.

Basically is composed by different kind of objects:

- PLAYER access player functions.
- CFG access configuration. With this object you can access all the PLAYER configuration.
- PRESET PRESET settings. There are 20 presets that act as memories where you can store all the PLAYER player settings like url, play mode, repeat mode, fade mode, etc.
- EVENT Event configuration lets PLAYER execute automated functions. There are 3 possibilities GPI1, GPI2 and SILENCE settings.
- CAL Calendar configuration lets PLAYER execute automated functions on date event. There are up to 24 different calendar.
- SAF Store and Forward settings.
- SCRIPT Manage PLAYER scripts. Is possbile to execute scripts based on different kind of triggers like BOOT, EVENT, LOAD PRESET, CALENDAR, NETWORK, etc.
- LOG Register functions that allows the user to write to the PLAYER internal **REGISTER.**
- DEV Device status and other setups (like install new firmwares).
- PANEL Panel lock mode settings and status.
- FINDER use FINDER settings to discover your PLAYER.
- LCD Allow access to PLAYER LCD display.



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9.1 PLAYER LUA SDK V1.02

9.1.1 CHANGELIST

• v1.02 - xxxx/xx/xx

- ✓ Added DEV_reboot function
- ✓ Added CFG_backup2 function with type parameter: user, admin and gallery
- ✔ Bug fix CFG_backup was calling to Device.Backup instead Settings.Backup
- ✔ Typo, Calendar general_enabled changed to bEnabled
- ✓ Typo, Scripts enabled change to bEnabled
- v1.01 2018/03/14
 - ✓ Added DEV_mac function
 - ✔ Added DEV_regkey function
- v1.00 2018/02/08
 - ✔ First version of the document also named "Preliminary version"

9.2 HOW TO USE PLAYER MODULE

In order to use PLAYER module you must include it in your source code using require statement. PLAYER automates this function for you, but you can also include PLAYER module manually and create your PLAYER object as you need using the next two lines of code:

require "PLAYER" mydev = PLAYER.new()

In this case you can program actions directly to your PLAYER device, but also it is possible to access PLAYER directly from your PC (in this case it is recommended to use some LUA development tool like Eclipe/LUA)

If you want to use PLAYER directly from your PC you can call "new" function with IP and PORT parameters as shown next:

require "PLAYER" mydev = PLAYER.new("10.120.120.4", 2003)

Where 10.120.120.4 is the PLAYER IP address, that you can check by pressing ENTER button for 10 seconds and going to WIFI or ETHERNET menu. 2003 is the JSON port.

One time PLAYER object is created is possble to access all functions in it.

Let see what you can do.



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9.2.1 CONVENTIONS

- **n** indicates number
- **b** indicates Boolean
- **txt** indicates text

9.2.2 PLAYER FUNCTIONS

Access player functions like repeat, fade, etc.

Functions

Function: PLAYER_stereo(bStereo) Description: Set the player output mode to stereo or mono Parameters: bStereo - boolean, set to true for stereo output, otherwise mono output is selected Function: PLAYER_fade(nFade) Description: Set the player fade mode Arguments: nFade - integer 0-OFF, 1-XFADE, 2-FADE Function: PLAYER_mode(nPlayMode) Description: Set the player playlist sequence mode Arguments: nPlayMode - integer 0-SEQUENTIAL, 1-RANDOM Function: PLAYER_repeat(nRepeat) Description: Set the player repeat mode Arguments: nRepeat - integer 0-PLAY ALL, 1-PLAY ONE, 2-REPEAT ALL, 3-REPEAT ONE

Function: PLAYER_getStats()

Description:

Get the player statistics and status

Return:

String – xml string containing all the player status

In the next example you could see how to obtain the player stats and how to parse it using cjson library.

require "PLAYER"



ep=PLAYER.new() json_text=ep.PLAYER_getStats() print(json_text)

cjson=require "cjson"
value=cjson.decode(json_text)
print("SourceList[3]=" ..

output

{"title":"The White Stripes - Seven Nation
Army","counter":"52:52","txtSource":"NET","status":1,"SourceList":
["","MMC","USB","DLNA","AIRPLAY","rock
alternativo"],"source":5,"preset":1,"volume":100,"txtVolume":"0dB","stereo":1,"repeat":2,"playmode":0,"
fade":1,"
bootpreset1":0,"sp":1,"bitrate":"192","duration":"--:--","freq":"44.1","playlist_index":" 0001 /
0001","playlist_url":"mmc://radiobob-alternativerock-mp3-hq?
sABC=5n6s2sr8%230%23no8617362n29q2o435p17n54928n16s5%23gharva&amsparams=playerid:tune
in;skey:15 17236200","priority":""}
SourceList[3]=USB

Function:

PLAYER_queue(urlNextElem)

Description:

Add next playlist item. Using this function you can compose your own playlist. In order to do a continous play it is necessary to queue next item prior to the end of the current one. Arguments:

urlNextElem - url of the item to add

Function:

PLAYER_priority(urlElemePriority)

Description:

Use this function to play priority sounds over the normal playlist. It apply

Return:

String – url of the priority element

Function:

PLAYER_play()

Description:

If the player is paused or stopped use this function to start current loaded item reproduction, otherwise the player is paused.

Function:

```
PLAYER_stop()
```

Description:

Use this function to stop the current player reproduction.

Function:

PLAYER_next()

Description:

Use this function to advance to the next item. It retains the play state after advance is done.

Function: PLAYER_previous() T.O.C.

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Description:

Use this function to move back to the previous item. It retains the play state.

Function:

PLAYER_incvol = function()

Description:

Use this function to increase the player volume

3dB. Function:

PLAYER_decvol = function()

Description:

Use this function to decrease the player volume 3dB.

Function:

PLAYER_setvol = function(perc)

Description:

Use this function to set the current player volume

Arguments:

nVolume - integer 0 to 100

Function:

PLAYER_setvol = function(perc)

Description:

Call this function to set the mute player parameter.

Arguments:

bMute - boolean set to true to mute the player, otherwise unmute the player.

Function:

PLAYER_open = function(options)

Description:

Call this function to open/load a preset or source or url

Arguments:

url (optional) -- String of the url you want to open e.g. mmc://my-music/ http:://my.server/musicmp3 preset (optional) -- integer from 1 to 20. Indicates the preset you want to open source (optional) -- integer from 1 to 24 representing MMC, USB, DLNA, AIRPLAY and presets from PRESET1 to PRESET 20 (preset must be configured properly)

How to load "PRESET 12"?

require "PLAYER"

ep = PLAYER.new()

ep.PLAYER_open({preset=12})

How to load url "http:://my.server/music-mp3"?

require "PLAYER"

ep = PLAYER.new()

ep.PLAYER_open({url="http://my.server/music-mp3"})

How to load source "AIRPLAY"?

require "PLAYER"

ep = PLAYER.new()

ep.PLAYER_open({source=4})

*note the { } around the parameter which indicates optional arguments



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9.2.3 CONFIG. (CFG) FUNCTIONS

Set and get PLAYER parameters: PRESET, SAF, CAL, EVENT, SCRIPT and LOG. Please refer to the corresponding section to check how to set/get each parameter.

Functions

Function:

CFG reset()

Description:

Restore PLAYER configuration to its initial state (factory defaults). Please note that using this function you will lost all your changes.

Function:

CFG_restore(urlRestore)

Description:

Restore PLAYER settings from the urlRestore file e.g. mmc://good-settings.config http:://my.server/PLAYER/mycompany.settings

Arguments:

urlRestore – String indicating the url where settings you want to restore

Note:

If you wan to apply all settings you must call DEV_reboot or call every XXX_reload function to apply changes one per one.

Function:

CFG_backup(urlBackup, bUser)

Description:

Backups PLAYER settings to urlBackup.

Arguments:

urlBackup – String indicating the url where settings are stored e.g. mmc://goodsettings.config http:://my.server/PLAYER/mycompany.settings bUser – Boolean set to true for user settings only, otherwise all the settings are backuped to the target destination

Function:

CFG_backup2(urlBackup, type)

Description:

Backups PLAYER settings to urlBackup.

Arguments:

urlBackup – String indicating the url where settings are stored e.g. mmc://good-settings.config http:://my.server/PLAYER/mycompany.settings

type – String available possibilities are: user, admin and gallery. Select gallery for Player, Events, , Scripts, Player Profile and Network settings. Select user for Player, Presets, Events, Calendar, Cloud Disk, and Scripts. Select Admin for all the available settings.

Function:

CFG_get = function(interface, section, variable)

Description:

Return the value of the selected variable "interface.section.variable"

Arguments:

interface – must be a valid interface: preset, saf, calendar(01..24), event (gpi1,gpi2, silence),

, script and log.

section - variable's section. Most of the cases is "settings"

variable - variable's name.

Return:

String with the variable value.



Function:

CFG_set = function(interface, section, variable, value)

Description:

Set the value of the selected variable "interface.section.variable" to "value" Arguments: interface – must be a valid interface: preset, saf, calendar(01..24), event (gpi1,gpi2,

silence), gdrive, script and log. section – variable's section. Most of the cases is "settings" variable – variable's name. value – variable's value.

Function:

CFG_commit = function(interface)

Description:

Commit interface changes. After changes all variables in one interface it's necessary to dump changes to PLAYER internal memory. Do it one time for each modified interface. Arguments:

interface – must be a valid interface: network, wireless, preset, saf, calendar(01..24), event (gpi1, gpi2, silence), gdrive, script and log.

9.2.4 PRESET FUNCTIONS

Set and get PLAYER PRESET parameters. There are 20 presets available. Each preset can configure: name, events enabled, playlist, media alias, play status, volume, mute, play mode, repeat mode, fade mode, stereo/mono.

Functions

Function: PRESET_reload(index)

Description:

Reload preset configuration. Call it after modify the preset configuration using CFG_set and CFG_commit

Arguments:

index - number indicating the preset number (from 1 to 20)

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9.2.4.1 PRESET VARIABLES

presetNN.settings.bname	Preset name	
presetNN.settings.eventList	List of enabled events separated by % (GPI1%GPI2%SILENCE)	
presetNN.settings.bPlaylist	1 to overwrite playlist	
presetNN.settings.loadPlaylist	url of the playlist. Must be enabled using presetNN.settings.bPlaylist	
presetNN.settings.mediaAlias	Alias of the enabled playlist. It appears as source	
presetNN.settings.bStatus	1 to overwrite status	_
presetNN.settings.status	Preset status must be PLAY or STOP	
presetNN.settings.bVolume	1 to overwrite preset volume	
presetNN.settings.volume	Preset volume in % (from 0 to 100)	
presetNN.settings.mute	1 indicates mute, 0 to unmute	-
presetNN.settings.bPlayMode	1 to overwrite play mode	
presetNN.settings.playMode	RANDOM or SEQUENTIAL	
presetNN.settings.bRepeatMode	1 to overwrite repeat mode	
presetNN.settings.repeatMode	PLAY ALL, PLAY ONE, REPEAT ALL or REPEAT ONE	5
presetNN.settings.bFadeMode	1 to overwrite fade mode	
presetNN.settings.fadeMode	OFF, XFADE or FADE	2
presetNN.settings.bStereo	1 to overwrite stero/mono mode	ç
presetNN.settings.stereo	MONO or STEREO	OPERATION

• All variables are optional.

• NN indicates a number 01 to 20

require "PLAYER"

```
ep = PLAYER.new()
```

```
ep.CFG_set("preset03",
                        "settings",
                                     "bname",
                                                   "My
                                                           first
                                                                  preset")
ep.CFG_set("preset03", "settings", "bPlaylist", 1)
ep.CFG_set("preset03", "settings", "mediaAlias", "Alias of my first preset")
ep.CFG_set("preset03", "settings", "bVolume", 1)
ep.CFG_set("preset03",
                           "settings",
                                         "volume",
                                                          100)
ep.CFG_set("preset03", "settings", "loadPlaylist", "mmc://")
ep.CFG_set("preset03", "settings", "eventList", "GPI1%SILENCE")
ep.CFG_commit("preset03")
```

```
ep.PRESET_reload(3)
```

9.2.4.2 PRESET EXAMPLES

At this moment you can load the configured preset with this instruction:

```
ep.PLAYER_open({preset=3})
```

9.2.5 EVENT FUNCTIONS

Event functions lets PLAYER execute automated functions. There are 3 possibilities GPI1, GPI2 and SILENCE settings.

Functions

Function: EVENT_reload(txtEvent)

Description:

Reload event configuration. Call it after modify the preset configuration using CFG_set and CFG_commit

Arguments:

¥

txtEvent - String indicating the event to reload (GPI1, GPI2 or SILENCE)

9.2.6 EVENT VARIABLES

When programmaing GPI1 or GPI2 these variables are available

gpiN.settings.source_polarity	Event polarity DIRECT or REVERSE
gpiN.settings.target_type	INTERNAL, PRESET RECALL, TRANSPORT CONTROL,
	LOAD & PLAY SOURCE or PRIORITY SOURCE
gpiN.settings.target_preset	If target_type=PRESET RECALL put here the preset number
	1 to 20
gpiN.settings.target_transport	If target_type=TRANSPORT CONTROL enter here one of
	this options: STOP, PLAY, PREV/RW, NEXT/FW
gpiN.settings.target_loadsource	if target_type=LOAD & PLAY SOURCE or
	target=PRIORITY SOURCE put here the url you want to load
	and play
gpiN.settings.target_priomode	If target_type=PRIORITY SOURCE enter here the priority
	mode. Choose between HOLD or PULSE
gpiN.settings.target_prio_retrigger	If target_priomode=PULSE set to 1 to active retrigger option.
	0 to disable it
gpiN.settings.target_prio_pulse_time	If target_prio_retrigger=1 put here the playback duration

N should be 1 or 2 (for GPI1 or GPI2)

While programming SILENCE these variables are available

silence.settings.source_detecttime	Put here the detection time in seconds
silence.settings.target_type	INTERNAL, PRESET RECALL, LOAD & PLAY SOURCE
silence.settings.target_preset	If target_type=PRESET RECALL put here the preset number 1 to 20
silence.settings.target_loadsource	if target_type=LOAD & PLAY SOURCE or target=PRIORITY SOURCE put here the url you want to load and play

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9.2.7 CALENDAR (CAL) FUNCTIONS

Calendar functions lets PLAYER execute automated functions on a date/time. There are 24 different calendar events available.

Functions

Function: CAL_reload(nIndex)

Description:

Reload calendar configuration. Call it after modify the calendar configuration using CFG_set and CFG_commit

Arguments:

nIndex - number indicating the calendar to reload (1 to 24)

9.2.7.1 CALENDAR VARIABLES

calendarNN.settings.general_description	Calendar name or description
calendar01.settings.bEnabled	Set to 1 to enable this calendar
calendarNN.settings.source_start_date	Start date (YYYY/MM/DD). Could be blank
calendarNN.settings.source_start_time	Start time (HH:MM). Could be blank.
calendar.settings.source_end_enable	Could be FOREVER or CUSTOM END DATE
calendarNN.settings.source_end_date	If CUSTOM END DATE is selected put here the calendar end date (YYYY/MM/DD)
calendarNN.settings.source_end_time	If CUSTOM END DATE is selected put here the calendar end
	time (HH:MM)
calendarNN.settings.source_week_nonactive	Week mask where calendar is not active. Should be a string of days. Each day is represented by his 2 first letters (MoTuWeThFrSaSu)
calendarNN.settings.source_repeat_enable	1 indicates that the calendar must repeat the selected interval time up to the number indicated in times variable. 0 no repetition
calendarNN.settings.source_repeat_interval	If repeat is enabled this parameter indicates the repetition time
calendarNN.settings.source_repeat_times	If repeat is enalbed this parameter indicates the repetition's number
calendarNN.settings.target_type	INTERNAL, PRESET RECALL, TRANSPORT CONTROL, LOAD & PLAY SOURCE or PRIORITY SOURCE
calendarNN.settings.target_preset	If target_type=PRESET RECALL put here the preset number 1 to 20
calendarNN.settings.target_transport	If target_type=TRANSPORT CONTROL enter here one of this options: STOP, PLAY, PREV/RW, NEXT/FW
calendarNN.settings.target_loadsource	if target_type=LOAD & PLAY SOURCE or target=PRIORITY SOURCE put here the url you want to load and play

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9.2.8 STORE AND FORWARD (SAF) FUNCTIONS

Store and Forward module let PLAYER download remote media content from a rsync/ssh server to local storage devices (same as PRESET1), daily, and recall PRESET1 to automatically play it.

Functions

Function: SAF reload()

Description:

Reload Store and Forward configuration. Call it after modify the Store and Forward configuration using CFG_set and CFG_commit

9.2.8.1 STORE AND FORWARD VARIABLES

saf.settings.bEnabled	Set to 1 to enable daily Store and Forware synchronization
saf.settings.time_param	Enter here the synchronization hour (HH:MM)
saf.settings.host	Put here the rsync/ssh server address
saf.settings.port	Enter here the rync/ssh port (default 22)
saf.settings.source_path	Enter here the server folder where the contents are stored
saf.settings.source_user	SSH/rsync username parameter
saf.settings.source_key	Enter here your private SSH/rsync key
saf.settings.source_timeout	Enter here the SSH/rsync operation timeout (in seconds)

9.2.9 REGISTER (LOG) FUNCTIONS

Register functions that allows the user to write to the PLAYER internal REGISTER

Functions

Function:

```
LOG_trace(txtLog)
```

Description:

Add to PLAYER LOG register a trace line

Arguments:

txtLog – String containing the text you want to add. The source of the register line will be equal to "ScriptNN" where NN represents the script calling LOG_trace

Function:

LOG_warning(txtLog)

Description:

Add to PLAYER LOG register a warning line

Arguments:

txtLog – String containing the text you want to add. The source of the register line will be equal to "ScriptNN" where NN represents the script calling LOG_warning

Function: LOG_error(txtLog)

Description:

Add to PLAYER LOG register a error line

Arguments:

txtLog – String containing the text you want to add. The source of the register line will be equal to "ScriptNN" where NN represents the script calling LOG_error

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9.2.10 DEVICE (DEV) FUNCTIONS

Device functions allows the user to setup firmware and general PLAYER configurations.

Functions

Function: DEV_reboot()	T.O.C.
Description: Reboot the PLAYER inmediatly.	
Function: txtVersion = DEV_version()	PRE
Description:	PRECAUTIONS
Get the PLAYER firmware version Return:	IONS
txtVersion – string containing PLAYER firmware version formatted	FE,
Function: DEV_update(urlFirmware)	FEATURES
Description: Installs a new PLAYER firmware version. After installation device is rebooted automatically	ES
Arguments:	
urlFirmware – Url containing the path where PLAYER firmware resides. Must be a local storage device or http/https url.	INSTALL & CONNECT
Function: total, used, percent = DEV_get(devUrl)	ор s'
Description: Get the PLAYER firmware version	START-UP & OPERATION
Arguments:	-UP
devUrl – url of local storage device. Must be mmc:// or usb://	Ē
Return: total – number representing total number of bytes of external storage device used – number of bytes representing the used size percent – number parameter representing the used percentadge	PANEL FUNCTIONS
Example:	Ë
require "PLAYER"	CHNIC
ep=PLAYER.new()	TECHNICAL DATA
print("usb", ep.DEV_get("usb://"))	SW TP-CC
total,user,percent=ep.DEV_get("mmc://")	NTR
print("mmc", total, user, percent)	WebGUI
usb 7823420 4223365	WebGUI
mmc 15629312 68912 0	D×
Function:	
DEV_boot(nBoot)	
Description:	

Set device boot mode to nBoot

Arguments:

nBoot - number indicating load PRESET1 (bBoot=2) or keep settings (nBoot=1)

Function:

bEncrypt = DEV_isEncrypted(devUrl)

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Description: Get local storage encrypted flag
Arguments: devUrl – string must be mmc:// or usb:// Return:
bEncrypt – boolean, true, if local storage is encrypted
Function: bEncrypt = DEV_isEncrypted(devUrl)
Description: Get local storage encrypted flag Arguments:
devUrl – string must be mmc:// or usb:// Return: bEncrypt – boolean, true, if local storage is encrypted Function:
bEncrypt = DEV_mac()
Description: Get device MAC address Return:
jsonMAC – json string representing MAC address value
require "PLAYER" device=PLAYER.ne w()
{"mac":"A8 40 41 16 47 D6"}

{"mac":"A8 40 41 16 47 D6"} Function: bEncrypt = DEV_regkey()

Description: Get device Registration Key code Return:

jsonMAC - json string representing Registration Key code

```
require "PLAYER" device=PLAYER.new()
```

print(device.DEV_regkey())

{"regkey":"A269FCEAB4F1C20B"}

9.2.11 PANEL FUNCTIONS

Panel functions allows the user to setup firmware and general PLAYER configurations.

Functions

Function: PANEL_set=function(lockMode, password)

Description:

Set the panel lock mode and password

Arguments:

lockMode – string indicating lock mode. Possible options are UNLOCK ALL, UNLOCK USER, LOCK ALL password – string with the LOCK/UNLOCK password. Max length is 8. Valid characters are: 0-9 A-Z

. + -



Function:

lockMode, password = PANEL_get()

Description:

Set the panel lock mode and password

Return:

lockMode – string representing lock mode. Possible values are UNLOCK ALL, UNLOCK USER, LOCK ALL password – string with the LOCK/UNLOCK password

9.2.12 FINDER FUNCTIONS

Finder functions allows the user to run finder operation on PLAYER.

Functions

Function:

FINDER_set(bLigth)

Description:

Start or Stop finder operation. If finder is active, PLAYER display blinks.

Arguments:

bLigth – boolean, set to true to start finder operation (display blink). Set to 0 to stop finder operation (normal state)

9.2.13 LCD FUNCTIONS

LCD functions allows the user to show messages on PLAYER LCD display. The texts are limited to LCD physical dimensions: 2 lines per 16 columns.

Functions

Function:

LCD_print(txtLine1, txtLine2, center, timeout)

Description:

This functions shows a message on the PLAYER LCD display Arguments: txtLine1 – String corresponding to the text on the first LCD line txtLine2 – String corresponding to the text on the second LCD line center – Booelan, set to true to center the text on the LCD display timeout – Number of seconds that message is showed in PLAYER LCD display

Function:

LCD_print2({txtLine1, txtLine2, bCenter, nTimeout})

Description:

This functions shows a message on the PLAYER LCD display. Parameters are optional. Arguments:

txtLine1 (optional) – String corresponding to the text on the first LCD line txtLine2 (optional)– String corresponding to the text on the second LCD line center (optional) – Booelan, set to true to center the text on the LCD display nTimeout (optional) – Number of seconds that message is showed in PLAYER LCD display

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All product characteristics are subject to variation due to production tolerances. **NEEC AUDIO BARCELONA S.L.** reserves the right to make changes or improvements in the design or manufacturing that may affect these product specifications.

For technical queries contact your supplier, distributor or complete the contact form on our website, in <u>Support / Technical requests.</u>

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