VP320

User guide

EVENTVIDEOPLAYER

Made in France

DMX In   DMX Out

Volume
– Menu –

Version :	2.4 (for firmware 1.13.1 or higher)
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Éditeur :	Waves System
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Licence

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Welcome

My Video Player VP320 is a media player designed to broadcast 4k video, images, music, web pages and audio. Files are stored in a USB stick or µSD /SDHC card or an internal flash memory (4Go available).

This player can easily read media files in a loop or can be triggered through external events such as entry contact, TCP/IP requests, HTTP requests, schedule ...

Player. VP320 is ideal for retails, museums, exhibitions and theme parks.

★ Refer to the user guide

- From a web browser: https://waves-system.com/.
- From the menu `Documentation utilisateur` de la remote administration of VP320.

⚠ Safety

Refer to chapter ☝ ☝ Safety instructions [p.7] of *VP320* user guide.

1. Safety instructions

⚠️ **Warning**

CAUTION! DO NOT EXPOSE THE PRODUCT TO HUMIDITY NOR DUST!

Unplug the power supply cable before any servicing

FOR YOUR SAFETY, PLEASE READ CAREFULY THE USER'S GUIDE BEFORE OPERATING YOUR PLAYER VP320.

CE marking

The CE marking is placed on the nameplate, at the rear side of the device. It attests to compliance of the device with low voltage CE directive according to EN 55022 standard, and the Electromagnetic Compatibility Directive 61000-4-x.

Overview

• The user manual is an integral part of the product. It must always be kept handy & close by. Proper usage involves strict compliance with the instructions given in this manual.

In the event of return of the equipment, the user manual should be handed over to the new purchaser.

The staff should receive instructions concerning the proper usage of the device.

• Only the use of genuine parts ensures perfect safety for the user and correct operation of the device. Moreover, only accessories mentioned in the technical documentation or explicitly approved by the manufacturer must be used. If accessories or consumable products from other brands are used, the manufacturer cannot stand guarantee for the correct and safe operation of the device.

• Damages caused through the use of accessories or consumable products from other brands will not entail right to any benefit under the terms of warranty.

• The manufacturer will be liable for the safety, reliability and functioning of the product as long as the assembly, settings, modifications, extensions and repairs have been carried out by the manufacturer or a company approved by the manufacturer, and if the device is used in accordance with the instructions mentioned in this manual.

• The player complies with the technical safety standards in force at the date of print of this manual. All rights reserved for the electrical diagrams, procedures, names and devices mentioned herein.

• Any reproduction of the technical documentation, even partially, without the written authorization from Waves System is prohibited.

General safety instructions

This device has been shipped out from our facilities in perfect working condition. In order to preserve these conditions, for safety and to avoid any risk of accidental bodily injury, the user must imperatively follow the safety instructions and read the 'Caution!' messages included in this manual.

This device, made by Waves System, has been designed in a way that practically eliminates any risk if it

is used in accordance witj its intended purpose. Nevertheless, for the sake of safety, we would like to draw your attention to the following instructions:

• When using the device, comply with all local rules and regulations in force. Any modification or conversion of the device automatically entails loss of the certification. The operation of a modified device is liable to a penalty. In the interests of occupational safety, the operator and the user are held responsible for complying with the regulations.

• Keep the original packing for a possible product reshipment. Also ensure that the packing material is kept out of the reach of children. Only this original packing ensures optimal protection for the product during transportation. If a product reshipment appears to be necessary during the guarantee period, Waves System is not liable for any ensuing damages arising during the transportation and attributable to a defective packing.

• This device should be used only by persons whose training or knowledge ensures proper handling.

• Before each use, the operator must check that the device is in perfect working condition.

• This product must not be used in places where there is a potential explosion risk. Besides, it must neither be used in an environment favoring combustion nor in a humid or excessively hot or cold location.

• Maximal temperature of use: +45°C

• Storage temperature: from 0°C up to +60°C

Safety instructions against risks due to electric currents

• The device must be connected to a grounded AC power outlet or a European standard outlet installed as per good professional practices.

• Disconnecting means of primary supply: Power outlet is used as the disconnecting means of primary supply, it shall remain accessible.

• Power supply: 12V DC - 3,45 A

• Before connecting the device, check that the mains voltage and frequency match the specifications indicated on the mains adapter.

• Before powering, check that the device and cables are not damaged. Damaged cables and connections must immediately be replaced.

• Never allow the power cords to come in contact with other cables. Handle the mains adapter cable as well as all other cables connected to the mains with extreme care.

• Always connect the power cord to the device first, then to the mains. The power outlet must remain accessible after the installation.

• Check the device and its mains adapter cable from time to time. Disconnect the device from the mains when it is no longer used or for the purpose of maintenance.

• Handle the power cord by using only the plug. Never remove the plug by pulling the power cord.

• Electrical connections, repairs, and maintenance must be carried out by qualified personnel.

• Do not switch the device on or off within a short period of time as this reduces its lifespan.

⚡	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS
⚠	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE. Warning, the user's guide must be red each time the symbol is written.
⎓	Direct current
🗑	WEEE
📖	User's guide must be red each time this symbol is written.
⊖—◐—⊕	Positive electric polarity

Terms uf use

• This product has been designed for indoor use only.

• The device must be attached under 2m high from the ground.

• If this device has been exposed to very high temperature fluctuations (e.g.: after transportation), do not connect it immediately. The condensation formed inside the device could damage it. Allow the device to reach ambient temperature before connecting it.

• Do not shake the device. Avoid sudden movements during its installation or handling.

• When selecting the spot for installation of the player, ensure that it is not exposed to a high source of heat, moisture, or dust. There

should not be any cables lying around as they might jeopardize your and others' safety.

2. Content of the box

Box

⬚ What's inside the box

1 My Video Player

Player VP320.

2 Remote control

You can use the remote control to configure the player through the screen or to change the playback.

3 Power supply
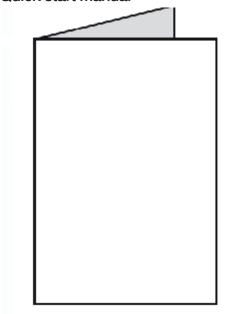
4 Power cord

The power cord is adapted to the country of destination.

5 Quick start manual

6 Primary batteries

2 primary batteries are supplied with the remote control.

3. Description of the player

Front panel of the player VP320

▶ Introduction of player VP320

1 Headphone jack

Plug your headphone to listen to the media from the service room.

2 Infrared sensor for the remote control

Thanks to the remote control, display and browse the configuration menu

3 Volume knob

Adjust the volume through the button.

4 Activity LED
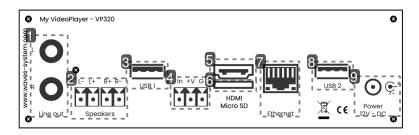
Interaction	Function
green	Steady green: ready, stop
	Blinking green: ready, reading
red	standby

Rear panel of the player VP320

1 Analog audio output to connect an amplifier

2 Amplified audio output to connect loudspeakers

3 USB 1 port to connect a storage medium or a pointing device

4 Entry contact coupled with a 12V power supply

5 HDMI audio/video output

6 Micro SD

7 Ethernet connector 10/100 Mbit/s

8 USB 2 port

9 **Power supply**

Power
12V - DC

3.1. Input contacts

The player has one input contact. Connect directly a push button or a sensor from Waves System portfolio. An input contact is defined by:

- In : trigger

- +V : 12V output power to power the sensor

- G : Ground

The contact is triggered when In is connected to Ground G.

By default, activation of input contact will play folder 001.

⚠️

You can damage the player when connecting +V to G.

4. Startup and configuration

This procedure explains how to start and configure your player VP320 for the first time.

1 Power on the player.

2 Connect the player to the local network.

3 Connect a screen to the HDMI connect.

4 Insert the primary batteries to the remote control.

5 Point the remote control towards the front panel of the player and press   *i*   .

6 IP address appears on the banner if the player is connected to a DHCP network. You can now connect to the player from any web browser of your network.

7 Note the IP address in the address bar and connect with admin `admin` and password `password`.

8 If the network does not support DHCP, press Menu   ▤   of the remote control and go to System settings>Network to configure the static IP address.
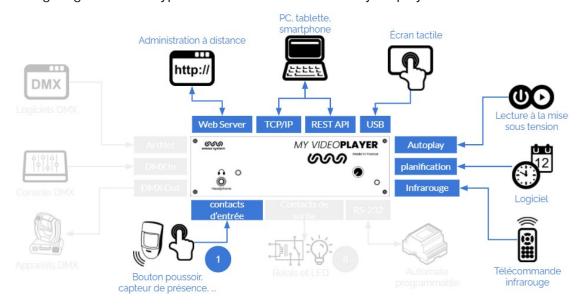
↳ Résultat

Your player VP320 is now ready to be used.

5. Connexion diagram

The following diagram lists all types of connexions available on your player VP320.

6. Set up and update your content media support

You can either choose to use the 4 Gb internal memory or an external support memory such as a SD /SDHC card or a USB key. Each time, the support contains all useful data to broadcast the content. You will find folders and tags, all media, system files and optional files related to your programming (scheduler, web pages, json files).

> ⚠ **Caution!**
>
> Make sure to use high end quality content media supports. Waves System has only qualified Sandisk manufacturer. We do not recommend Trenscend products.

6.1. First setup of removable content support

SD / SDHC cards and USB keys are generally already formated in FAT or FAT32. But we recommand to perform a new formatting by selecting FAT32, exFAT or NTFS.

6.2. Update content on removable content support

▤   Please follow the following steps to update your content on the removable content support:

1   Remove the content support (SD card or USB key) from the player.

2   Connect the content support to your computer.

3   Copy, rename, remove files and folders.

4   Remove the content support from your computer by using the ejection system of your operating system.

5   Insert the content support in the player.

6.3. Update content directly from your local network

Connect to the remote administration of the player and access directly to the different memories connected to the player. You can drag , drop and edit your content directly on the web interface. Default login is `admin` and defalut password is `password`. More information in chapter ⤴ [p.43] ⤴Advanced configuration.

6.4. Update content using Wavespark server

Wavespark is a SAAS service that allow you to register all you media players VP320, VP330 and EVP380. You can easily control your fleet and update your contents.the way you organize your content is similar to a single player. the first step required is to regsiter the player to your wavespark account by

selecting the menu on screen ▷ `System settings` . Another way is to connect to the remote administraition, please refer to ☞Configuration avancée. [p.43]

7. First steps with your player VP320
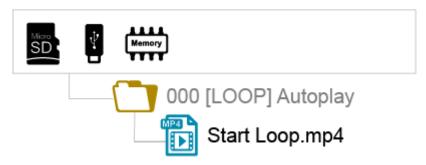
Introduction

The name of folders and files defines the rules of the playback. Folders and files must be named and copied according to specific rules that are described further. This behaviour applies to all types of media (audio, video, web and pictures).

7.1. Autoplay

Create a folder named 000 on your removable content support. Copy inside that folder your media such as videos, pictures, audio files. Insert your support in the player. Power on the player. Media files copied in folder 000 are randomly read.

Folder 000 is read by default when powering on the player. At power on, player checks if folder 000 is present. If so, it starts playing the files contained in this folder. If not, the player goes into state "STOP".

If you want to loop on folder 000, just add the tag [LOOP] to the name of the folder. If you want to read files sequentially, give a number a the beginning of each filename and add a tag [SEQ] to the name of the folder. (more details on tags below).

💬

Folders LOST.DIR et SYSTEM and file .nomedia are added by the player on the support at the fisrt playback. Do not copy your media in these folders.

7.2. Using input contact of your player VP320

The input contact can be configured in the menu. By default, input contact will trigger folder 001.

7.3. Identify the player on your local network

Use the remote control, press menu and go to System settings > Network to get access to the current IP address of the player.

As an alternative, select OK or Info and read the IP addressat the bottom right of your screen. QR code gives you direct access to the remote administration from a smartphone connected to the same network.

8. Control the player with folders and files

8.1. Arrangement of folders

👁

> 000 : Folder N°000 - «Autoplay» folder played at power on
>
> 001 : Folder N° 1 - Folder trggered by input contact 1
>
> 034 : Folder N° 34

Input contacts trigger folders with the number between 0 and 255 corresponding to the binary code generated by the combination of inputs. You can reaffect each input contact to another folder number by using the menu or the remote administration.

Folder N°	Input N°							
	1	2	3	4	5	6	7	8
	Corresponding binary value							
	1	2	4	8	16	32	64	128
001	x							
002		x						
003	x	x						
004			x					
005	x		x					
006		x	x					
007	x	x	x					
008				x				
009	x			x				
010		x		x				
011	x	x		x				
012			x	x				
013	x		x	x				
014		x	x	x				
015	x	x	x	x				
016					x			
017	x				x			
031	x	x	x	x	x			
032						x		
033	x					x		
063	x	x	x	x	x	x		
064							x	
065	x						x	
127	x	x	x	x	x	x	x	
128								x
129	x							x
254		x	x	x	x	x	x	x
255	x	x	x	x	x	x	x	x

💬

> Folder 000 is played by default at power on. If this folder is not present, then the player goes to state "STOP".

💬

> The folder read by default at power on can be modified in the setting menu.

8.2. Add tags to the name of folders to build your scenario

You can add optional tags to the name of the folder to modify the behaviour of the playback. These tags are surrounded by brackets «[» «]». You can have several tags combined together in a folder name.

Tag	Definition
[Jxxx]	Jump to another folder after reading the current folder or loop playback if it jumps to the same folder
[LOOP]	Loop playback, tags are ignored at each loop
[RESUME]	Save the reading position of the files when returning to the folder
[RET]	Return to the previous folder at the end of the playback of the folder
[RND] or [SEQ]	Random or sequential playback mode
[Vx]	Define the absolute volume of the player
[V+x] [V-x]	Define the relative volume of the folder compared to the absolute volume
[NT]	Disable the command events during the playback of the folder
[NRST] ou [NORESTART]	Disable the retrigger of the folder when it is being played
[WHL]	Play the folder while the assigned input combination remains activated
[NXTxxx]	Play the next xxx audio files each time the folder is played
[SUBS x] and [SUBE x]	Activate the display of subtitles at the beginning or at the end of a folder
[WEBS x] and [WEBE x]	Open a webpage at the beginning or at the end of the playback
[WEBS OFF] and [WEBE OFF]	Close a webpage at the beginning or at the end of the playback
[PROJS ON] and [PROJE ON]	Power on a video projector at the beginning or at the end of the playback
[PROJS OFF] and [PROJE OFF]	Power off a video projector at the beginning or at the end of the playback

⚠ **Case of a folder without tag**

> The player reads the current folder completely and randomly, then the player goe to state "STOP".

The folder can be interrupted.

⚠ Case of a missing folder

If a folder is defined by an action but the folder is missing, then the action is ignored.

8.2.1. [Jxxx] - Jump to folder xxx at the end of the playback of the folder

This tag defines the behaviour at the end of the playback of the folder. It defines the number of the next folder to be played.

◉ Example of loop playback at power on

000[J000] : Read files in a loop at the power on.

◉ Other examples

001[J002] : Jump to folder 002 at the end of the playback of folder 001

003[J003] : Jump to folder 003 at the end of the playback of folder 003 ->Loop on folder 003

008[J023] : Jump to folder 023 at the end of the playback of folder 008

127[J000] : Jump to folder 000 at the end of the playback of folder 127

At each loop, all tags of the folder are executed.

💬 Specific cases

If targeted folder does not exist, then the playback is stopped at the end.

A targeted folder can be empty. In this case the playback is instanteneous. Also all tags are executed. The playback stops exept if it has tags [Jxxx] or [RET] in its name.

8.2.2. [LOOP] - Play the folder in loop without the tags at each loop.

This tag executes a loop playback without executing the other tags named in the folder. This tag is of interest if you are using for example tags [RES] or [RSS] to control output contacts. Indeed you avoid unnecessary commutations of outputs in this case.

◉ Example

001[LOOP]

8.2.3. [RESUME] - Save the reading position of the files when returning to the folder

When the player leaves a folder to read another folder and then come back to the first folder, the playlist is reninitialed. In some occasions, you want to restart where the player stopped. For example a folder contains 10 files and the first 5 have been read already. With tag [RESUME], the playback will restart at file 6 and not at file 1.

👁 **Example**

> 001[RESUME]

8.2.4. [RET] - Return to the previous folder at the end of the playback of the folder

During the playback of a folder, if an event or a tag orders to play another folder tagged with [RET], then the player jumps to the new folder. At the end of the playback of this new folder, the player jumps back to the initial folder.

This function can be used to resume the playback of a folder interrupted by the playback of a message triggered by an event.

👁 **Example**

> 001[J100] : Playback of folder 001 then jump to folder 100
>
> 002[J100] : Playback of folder 002 then jump to folder 100
>
> 100[RET] : Playback of folder 100 then goes back to previous folder (001 or 002)
>
> In this example, at the end of playback of folder 001 or 002, folder 100 is played, then the player goes to the initial folder (001 or 002).

💬 **Note**

> The [RET] tag has only one level of return, i.e. the target folder is always the previously played folder, whatever the number of folders tagged with [RET] played in a row.

8.2.5. [RND] or [SEQ] - Sequential or random playback mode

By default, without this parameter, the folder is played in random mode.

[SEQ]: playback the files of the folder, in alphanumerical ascending order (from one to infinite, then A to Z then a to z then special characters and then non ASCII alphabets).

[RND]: playback in a random order.

👁 **Example**

> 001[SEQ] : Play the folder 001 in sequential mode, then stop
>
> 002[RND][J002] : Play the folder 002 in random mode and in a loop
>
> 003[J001] : Play the folder 003 in random mode, then jump to the folder 001

8.2.6. [Vx] - Adjust the absolute volume of the folder

This tag modifies the output volume during the playback of the folder. Once the volume iset, it remains unchanged for all next files and folders. If the value exceeds the minimum or the maximum values, then the minimum or the maximum value is applied.

👁 **Exemple**

001[V5] : Fixe la valeur du volume à 5 sur 100 pas disponibles

001[V34] : Fixe la valeur du volume à 34 sur 100 pas disponibles

001[V100] : Fixe la valeur du volume à sa valeur maximum

001[V0] : Fixe la valeur du volume à sa valeur minimum (Mute)

8.2.7. [V+x] ou [V-x] - Relative volume of the folder

This tag modifies the volume only during the playback of the folder. When the playback jumps to another folder, the previous volume is set. This feature can be used to increase the volume during an ad for example. Value x can be set between 0 and 100.

👁 **Example**

001[V+5][J002] : Increase the volume level by 5 steps during the playback of folder 001 then the volume will be set to previous when jumping to folder 002

004[V-24][RET] : Decrease the volume level by 24 stepsduring the playback of folder 004 then the volume will be set to previous when jumping to previous folder

8.2.8. [NT] - Disable the command events during the playback of the folder

With this tag, the files are played and cannot be interrupted, and the received orders are ignored as per the table below:

Command	Source				
	Input	RS-232	Scheduler	wheel click	IR remote control
Change folder	x	x	x	---	
Otherx					

Be careful, the order is not recorded and the trigger information is lost. Some peripherals can remain active despite this tag, this setting can be set in the configuration menu.

💬

Without this tag, the playback of the folder is interrupted by any incoming event (input contact, RS-232, Scheduler, etc.).

👁 **Example**

001[NT] : The instructions received are ignored during the playback of the folder 001. Any event coming from input contact, RS-232 or other is ignored, and the playback is not stopped.

8.2.9. [NRST] or [NORESTART] - Disable retriggering of a folder when being played

The folder being played cannot be retriggered by an event that trigs this folder. Other orders are taken into account.

8.2.10. [WHL] - Play the folder while the assigned input combination remains activated

This tag allows to play the contents of a folder as long as the corresponding input combination is activated. When the input combination associated with the folder is deactivated, the player executes the tags correpsonding to the exit of the folder. As long as the corresponding input combination is activated, the folder is played in a loop.

👁 **Example**

001[WHL] : The folder 001 is played in a loop while the input combination 1 is activated. Whenthe input combination 1 is deactivated, the player stops.

002[WHL][J045] : The folder 002 is played in a loop while the input combination 2 is activated. When the input combination 2 is deactivated, the player plays the folder 045.

003[WHL][J999] : The folder 003 is played in a loop while the input combination 3 is activated (inputs 1 and 2 activated). When the input combination 3 is deactivated (inputs 1 and 2 deactivated), the player plays the folder 999.

The dry contact inputs of the player are combinatorial. Therefore, any changes of the input combination are taken into account at any time by the player.

👁 **Example**

000[J000] : The folder 000 is played in a loop on startup

001[WHL][J000] : The folder 001 is played in a loop while the input combination 1 is activated . If input 2 is activated in addition to input 1, then it activated virtual input 3 and orders the player to read folder 003

002[WHL][J000] : The folder 002 is played in a loop while the input combination 2 is activated . If input 1 is activated in addition to input 2, then it activated virtual input 3 and orders the player to read folder 003

003[WHL][J000] : The folder 003 is played in loop while the input combination of 1 and 3 is activated. If input 1 is deactivated, the players plays folder 002.

8.2.11. [NXTxxx] - Play the next xxx media files each time the folder is played

This setting allows to play xxx audio files contained in the folder. Once xxx files have been played, the

player executes the tags at the exit of the folder. If the number of files requested by this tag is greater than the number of files contained in the folder, the player loops in the folder as long as needed in order to play the exact number of files requested.

With this tag, the player memorizes the files already played. This means that the files already played during a previous playback in the folder are not replayed until all files of the folder have been played.

The xxx parameter of the tag [NXTxxx] is the number of files to play in the folder. It is between 001 and 999.

👁 **Example**

001[NXT003] : 3 files are played in the folder 001, then the player goes to STOP

002[NXT001][J000] : 1 file is played in the folder 002, then the player plays the folder 000

003[NXT005][RET] : 5 files are played in folder 003, then the player goes to the previous folder

004[NXT002][SEQ][J000] : 2 next files are played in the order in folder 004 then the player reads folder 000

8.2.12. [SUBS x] and [SUBE x] - Define the settings to display subtitles at the beginning or at the end of the playback

These tags define the settings to display subtitles at the beginning or at the end of the playback of a folder. Parameter x can be:

ISO639-1, ISO639-2 or ISO639-3 code of the language to display in subtitles (ex : [SUBS ENG] select and displays english at the start of the playback)

👁 **Example**

000[SUBS NONE] : videos of folder 000 are played at the power on. Subtitles are deactivated

001[SUBS AUTO] : videos of folder 001 are pllayed with subtitles defined in the global settings of the player

8.2.13. [WEBS x] and [WEBE x] - Open a webpage at the beginning or at the end of the folder playback

These tags open a webpage (visible or not) at the start or at the end of a folder playback. Parameter x is the page index defined in the 🗋 `web-config.json` file.

👁 **Example**

8.2.14. [WEBS OFF] and [WEBE OFF] - Close a webpage at the beginning or at the end of the folder playback

These tags close a webpage (visible or not) at the start or at the end of a folder playback.

👁 **Example**

8.2.15. [PROJS ON], [PROJE ON], [PROJS OFF] and [PROJE OFF]

These tags power on or power off a video projector at the start or at the end of a folder playback.

💬

Refer to menu 🔲 `System settings` to configure connection with a video projector using PJLink protocol.

8.2.16. Description of folder SYSTEM (optional)

This folder is optional. It contains additional files to customize the player or give it additional features.

SYSTEM\scheduler.tm2 -> File containing the scheduler

SYSTEM\scenario-config.json -> File to index web pages

Other files can be added depending of extensions and specific options of the player.

8.2.17. Description of folder WWW (optional)

The folder stores a set of web pages used to be displayed or to run Javascript code.

8.3. Arrangement of files inside folders

As for folder, the name of files give the behaviour of the playback

💬

The naming of files is free if you want a random playback («(RND]» tag or no tag in the folder name).

In a sequential playback, files are played in an ascending order. To make sure of the order you canadd a number at the beginning of the name. Additional tags acan be added to the filename to adapte the scenario as for folders.

👁

001 [J367] my message.mkv
063 [RS020] filename.wav
845 [V+12] my file.mp3
my song [NT].wav

For more information about the format of media files, you can refer the the detailed specification.

👁

Filename	File N°
001.mp3	001
063.wav	063

8.4. Add tags to the name of files to build your scenario

You can add optional tags to the name of the files to modify the behaviour of the playback. These tags are surrounded by brackets «[» «]». You can have several tags combined together in a filename.

Tag	Definition
[Jxxx]	Jump to another folder after reading the current file or loop playback if it jumps to the same folder
[RET]	Return to the previous folder at the end of the playback of the file
[Vx]	Define the absolute volume of the player
[V+x] [V-x]	Define the relative volume of the file compared to the absolute volume
[NT]	Disable the command events during the playback of the file
[DUR x] ou [DURATION x]	Define the duration of playback of a picture separately from the diaporama settings
[SUBS x] et [SUBE x]	Activate the display of subtitles at the beginning or at the end of a file
[SYNCHRO]	Synchronize players to start playback simultaneously
[WEBS x] and [WEBE x]	Open a webpage at the beginning or at the end of the playback of a file
[WEBS OFF] and [WEBE OFF]	Close a webpage at the beginning or at the end of the playback of a file
[PROJS ON] and [PROJE ON]	Power on a video projector at the beginning or at the end of the playback
[PROJS OFF] and [PROJE OFF]	Power off a video projector at the beginning or at the end of the playback

8.4.1. [Jxxx] - Jump to folder xxx at the end of the playback of the file

This tag defines the behaviour at the end of the playback of the file. It defines the number of the next folder to be played.

👁

my file [J002].mp3 : Jump to folder 002 at the end of the playback of the file.

003[J023].mp3 : Jump to folder 023 at the end of the playback of file 003.

034[J034].wav : Jump to folder 034 at the end of the playback of file 034. It's not a loop of file 034, but a jump to folder 034.

8.4.2. [NT]: Disable the command events during the playback of the file

This tag applied during the playback of the file when added to the filename.

8.4.3. [DUR x] or [DURATION x] - Define the duration of playback of a picture

This tag set the duration od a file whatever the global setting of the diaporama. Value x is a number of seconds, value INF or INFINITE set a unlimited duration.

👁 **Exemple**

[DUR 60], picture is displayed during 60 seconds

[DUR INF], picture is endless displayed

[Dur INFINITE], picture is endless displayed

[DURATION 15], picture is displayed during 15 seconds

[Duration infinite], picture is endless displayed

8.4.4. [SUBS x] and [SUBE x] - Define the settings to display subtitles at the beginning or at the end of the playback

These tags define the settings to display subtitles at the beginning or at the end of the playback of a file. Parameter x can be:
ISO639-1, ISO639-2 or ISO639-3 code of the language to display in subtitles (ex : [SUBS ENG] select and displays english at the start of the playback)

👁 **Example**

000[SUBS NONE] : videos of folder 000 are played at the power on. Subtitles are deactivated

001[SUBS AUTO] : videos of folder 001 are pllayed with subtitles defined in the global settings of the player

8.4.5. [SYNCHRO] - Synchronize players to start playback simultaneously

⚠

Refer to chapter ↪Synchronize players to start playback simultaneously [p.36]

8.4.6. [WEBS x] and [WEBE x] - Open a webpage at the beginning or at the end of the file playback

These tags open a webpage (visible or not) at the start or at the end of a file playback. Parameter x is the page index defined in the 🗋 `web-config.json` file.

👁 **Example**

8.4.7. [WEBS OFF] and [WEBE OFF] - Close a webpage at the beginning or at the end of the file playback

These tags close a webpage (visible or not) at the start or at the end of a file playback.

👁 **Example**

8.4.8. [PROJS ON], [PROJE ON], [PROJS OFF] and [PROJE OFF]

These tags power on or power off a video projector at the beginning or at the end of a file playback.

8.5. Adding subtitles to videos

You can select and display subtitles files to your videos. The configuration of default subtitles and the graphic edition of subtitles can be done through 👆Configuration avancée. The call of a new subtitle can be done at any time triggered by any kind of event. Thus, the playback is not interrupted when subtitles is changed.

Compatible subtitles format are:

.srt (SubRip)

.ssa (SubStation Alpha)

.ass (Advanced SubStation Alpha)

.vtt (WebVTT – Web Video Text Tracks)

.ttml (Timed Text Markup Language Document)

.dfxp (Distribution Format Exchange Profile)

8.5.1. Naming subtitles in separated files

the subtitle filename is defined by adding the video name to the langage name in ISO completed by the extension format.

👁

video name	format	English	subtitle name
loophome.mp4	ISO 639-1	EN	loophome.EN.srt
loophome.mp4	ISO 639-2	ENG	loophome.ENG.srt

8.5.2. Encapsulated subtitles

Selection and graphical edition of subtitles is also possible when encapsulated into videos.

8.5.3. Select one subtitle on the fly

You can dynamically select subtitles during the playback by programming an input contact, an RS-232 frame, a SDK Javascript, or HTTP order.

8.6. Playback a slideshow

Create a slideshow by copying several pictures in a folder. Pictures are played one after the other. The duration of each image is set in chapter 👆 👆Advanced configuration [p.43].

8.7. Playback of audio files

The playback of audio files can be coupled with the playback of metadata including CD cover or author. La lecture de fichiers audio peut être accompagnée de l'affichage des métadonnées inclusent dans le fichier comme l'image de la jacquette ou l'auteur. Refer to chapter 👆Advanced configuration [p.43] 👆.

8.8. Playback of a stream

The player is also able to stream audio/video content located in a tier HTTP/HTTPS server. This function is compatible with the following protocols HLS (HTTP Live Streaming), DASH (MPEG-DASH), Smooth streaming and HTTP direct.

You need to extract the URI (Uniform Resource Identifier) of the media and copy it in a text file with specific . stream extension. The file .stream will have 2 or 3 lines dpeneding on the stream nature:

1. file header:

[Stream]

2. URI of the media:

uri=<uri>

3. the kind of stream if it is not HTTP direct:

type=<hls> or type=<smooth-streaming> or type=<dash>

The file shall be placed in the right folder as you are used to do with local media.

A few examples of .stream files

1. Playback of a webradio (webradio.stream)

[stream]

uri=http://direct.franceinter.fr/live/franceinter-midfi.mp3

2. Playback of a video file located in the web server of another player Waves System

[stream]

uri=http://10.91.20.31/www/video.mp4

3. Playback of a video from a local HTTP video stream (localhttp.stream)

[stream]

uri=http://10.91.20.35:8080

4. Playback of a video from a remote HTTP video stream (remotehttp.stream)

[stream]

uri=https://sample-videos.com/video123/mp4/720/big_buck_bunny_720p_10mb.mp4

5. Playback of a video from an HLS video stream (hls.stream)

[stream]

uri=https://devstreaming-cdn.apple.com/videos/streaming/examples/bipbop_16x9/bipbop_16x9_variant.m3u8

type=hls

6. Playback of a video from a smooth-streaming video stream (smooth-stream.stream)

[stream]

uri=http://playready.directtaps.net/smoothstreaming/SSWSS720H264/SuperSpeedway_720.ism

type=smooth-streaming

7. Playback of a video from a DASH video stream (dash.stream)

[stream]

uri=https://livesim.dashif.org/livesim/chunkdur_1/ato_7/testpic4_8s/Manifest.mpd

type=dash

Nota: This feature "stream" is not compatible with protected http/https streams such as Youtube or Vimeo, nor images (JPG, PNG, GIF, ...).

```
1  [stream]
2  uri=https://scdn.nrjaudio.fm/adwz1/fr/30203/aac_64.mp3
```

8.9. Modification of background image when player is in state "STOP"

By default, background is black when player is in state "STOP" or between two folders. An image can replace the black screen. It must be strictly named waitscreen.jpg in jpg format. The file must be copied in SYSTEM folder at the root of the media.

8.10. Using TCP/IP link

You are able to request a parameter from the player or the player state through ethernet link. Refer to chapter 👍 👍 👍RS-232 & TCP/IP communication protocol for more details.

9. Synchronize players to start playback simultaneously

Introduction

All video players can synchronize to start media playback simultaneously. In case of a loop, players will wait each other to start a new loop together. [SYNCHRO] is the tag to synchronize players by defining Master player, Slaves players and contents to synchronize. Thisfeature is activated by default and can be deactivated in menu scenario settings>Playback start synchronization .

Connecting players all together

If you wish to synchronize the playback oftwo player, you need to connect both of the them with a single ethernet cable. If you wish to connect more than 2 media players, you can add a switch between them.

Player configuration out of a DHCP network

If your players are notre managed by a DHCP server, you must configure each player with static IP address. You can use the following example as an help:

Player 1:

IP address: 192.168.0.1

Gateway: 192.168.0.254

Prefix length: 24

DNS1: 8.8.8.8

DNS2: 8.8.4.4

Player 2:

IP address: 192.168.0.2

Gateway: 192.168.0.254

Prefix length: 24

DNS1: 8.8.8.8

DNS2: 8.8.4.4

Player n:

Adresse IP: 192.168.0.n

Gateway: 192.168.0.254

Prefix length: 24

DNS1: 8.8.8.8

DNS2: 8.8.4.4

Groups

You can make work together several groups of players in a unique network by changing their com port. Port 44830 is used by default. This setting is performed in menu Scenario

`settings>Playback start synchronisation.` All payers having the same port com number will belong to the same group.

For example group 1 gathers all players with port 44830 and group 2 gathers all players with port 44831. Thus when a master player from group 1 sends sync order on the network, all players from group 1 will react.

Setting Master player

Create folders as for any playback. Inside these folders, complete the filename that will be read as a Master with the tag [SYNCHROxxx].

⊙ Content example for a master player

Create folder 001[J000]

insert following files:

Lion1 [SYNCHRO001].mp4

Cat.mp3

Dog [SYNCHRO002].mov

files with tag [SYNCHRO] will send an order through the network. If other files are inside the folder, They will be read without sending any order. Thus you can playback some files with synchro and some other without.

Setting a slave player

Create a folder at the root of the media with name «synchro». In this folder, copy your files and add a number at the start of the filename.

⊙ Example of content of a Slave player

Create folder 🗁 synchro

insert files :

001 lion2.mp4

002 [J002] Dog2.mov

Slave pllayerbehaves as usual with all common features. When it receives a synchro order from a master, it stops the on-going playback to display the expected file.

In previous example, Master player starts playback of file Lion1.mp4 and Slave player starts to play simulatenously the file numbered 001 i.e lion2.mp4

As another example, master player starts the playback of file Dog.mov, Slave player starts to play simultaneouslythe file numbered 002 Dog2.mov

If some tags are presnt in the filename of the Slave, they will be executed at the end of the playback.
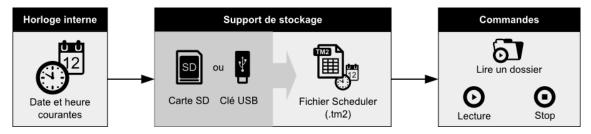
In this example, Dog2.mov is looped.

10. Control the player with a scheduler

10.1. Introduction

VP320 can be triggered by a series of date and time. You need to program the calendar of events with our software scheduler that can be downloaded in website waves-system.com in msupport menu. The software generates a file that you must copy in the folder SYSTEM of your media storage. The name of the file must remain 📄 `scheduler.tm2` as it is defined by default.

10.2. Principle

VP320 uses its internal clock to execute actions at due date and time. These actions are stored in a file named 📄 `scheduler.tm2` .

This file contains a calendar from 2016, 1st of january 2016 to 2037, 31st of december. Each day refers to a template day where all actions of a day are described.

💬

> If you have no template day for a date in the calendar, then the player will not execute any command for this date.
>
> If you wish the player to execute the same events for several dates, then select the same template day for these dates in the calendar.

A template day lists all events of a day, minute per minute, from 0h00 to 23h59. These events are order that will be executed py the player.

The software Scheduler du VP320 enables to:

• Create several template days,

• insert events every minute in a temaplte day,

An event can execute only one action .

You can choose a command among the following list :

•PLAY FOLDER: Play a folder of files

Select this command and add the folder number between 000 and 999 that you want to play. The tag that are listed in the name of the folder are executed.

•PLAY: Restart the playback

Select this command to restart the playback of the folder where the player stopped previously. This command is ignored if there was no previous command of playback or if the player is in stop mode.

•STOP: Stop the playback

this command stops the playback in the current folder.

•STANDBY: Standby the player.

•WAKE UP: Wake up the player.

•HDMI-CEC STANDBY: Turn off a display device with the HDMI-CEC protocol.

•HDMI-CEC WAKE UP: Turn on a display device with the HDMI-CEC protocol.

•VIDEO PROJECTOR (PJLINK) POWER ON: Turn on a video projector with the PJLINK protocol.

•VIDEO PROJECTOR (PJLINK) POWER OFF: Turn off a video projector with the PJLINK protocol.

💬

You can also configure the HDMI-CEC interaction mode of the player and its display device in menu `system settings`. Thus the standby of a display device can automatically set the player in standby mode.

💬

Refer to menu `System settings` to configure connection with a video projector using PJLink protocol.

11. Control the player using the HTML5 engine

The player VP320 embeds an HTML5/Javascript engine enabling the display of HTML5/JavaScript contents that can be stored in the player or located in a remote web server. With this feature, you can display local web pages, remote websites and web applications. This content can appear alone or can be displayed on top of the video playback.

The web content can be passive, it can also contain functions to control the player. As an example a button can stop the video or launch a new content. All available functions are already implemented and ready to use through the Javascript API of the player.

You can create any scenario based on this API.

Add a tactile interface to your player by connecting any HDI touchscreen to any of the two USB port.

To know more about the programmaing and to download examples, refer to the dedicated website*[http://download.id-al.com/manuals/HTML5_JavaScript_Engine/en/index.html][http://download.id-al.com/manuals/HTML5_JavaScript_Engine/fr/index.html]*.

12. Settings on front panel

12.1. Volume knob

Access to the absolute volume setting of the amplified output though the volume knob.

13. Infrared remote control

Le lecteurVP320 est fourni avec une télécommande infrarouge permettant de contrôler le lecteur.

Touche	Description
⏻	Short press: standby / wake-up. Long press: power off/ restart.
🔇	Mute/Unmute.
◀◀ ▶▶	Skip 10 seconds backward/forward.
▶❚	Play / pause.
■	Stop.
🟥 🟩 🟨 🟦	Programmable buttons. Setup in the menu. Play folder 001 to 004 by default.
i	Activate / deactivate display onformation on screen.
X	Exit.
▲ ▼	In menu context: up / down. In playback context: next/previous folder.
◀ ▶	In menu context: left / right. In playback context: previous / next file.
OK	In menu context: validate the selection. During playback: activate / deactivate display of information.
▤	Activate / deactivate the diplay of the menu.
↺	Back to previous menu.
Vol+ / Vol-	Increase/ decrease the volume.
A / B	Programmable buttons.
∧ ∨	Setting a value.
0- 9	In menu context: digit characters. In playback: play folder 0 to 9.
.	Dot character.
⌫	Erase previous character.

14. Advanced configuration

Player configuration is operated from the display menu on the screen or from the administration console embedded in the player. In this case, use a web browser from a computer connected to the same network and connect to the player ip address.

14.1. System info

This menu gives access to player main information:

- Model, serial number, software version and its release date,

- Current date and time,

- The player state, the storage used, the folder and the file being played, the audio volume,

- The power state and the date and time of last power on,

- The list of storages connected, their size and the free space,

- The display state, its resolution, its format and colour depth,

- The state of the video projector connected to the player through PJLink protocol,

- Network parameters,

- Printer state.

14.2. System settings

Set new parameters to the player through this menu.

14.2.1. Playback engine

Storage device

Select the storage to use at startup.

Slideshow image duration

Set how long still images appear in a slideshow, by default 5 sec, can be set between 1 sec and infinite.

Audio artworks

Display artworks embedded in audio files metadata.

14.2.2. Log

Activate log on the screen to display all the events of the player.

14.2.3. Network

14.2.3.1. IP settings

Obtain an IP address automatically (DHCP) or use manual settings (static).

14.2.3.1.a. Proxy settings

Set the proxy server configuration mode.

14.2.4. Display

14.2.4.1. Resolution

Enable this setting to let the device choose the best display resolution.

14.2.4.2. Display aspect

Set the zoom level to adjust the visible area.
Set the video resizing method to fit the video to the display format.

14.2.4.3. Dynamic range

Set the conversion strategy from High Dynamic Range to Sandard Dynamic Range and vice versa.

14.2.4.4. Custom video display area

Resize the video for non conventional screen sizes such as LED screens. Origin coordinate, pixel height and width and rotating angle can be adjusted.

14.2.5. HDMI CEC

By using a screen with CEC standard, the player can communicate with the device in both ways and send orders to wake up or standby.

14.2.6. Video projector

Through this menu, you can detect a video projector connected to the same network compatible with PJLink protocol. Enable the function, then enter the video projector IP address. You can also launch an automatic search of video projectors . If needed, you can also enter the password of the video projector.

14.2.7. Sound

System sounds can be removed. Multichannel audio can be converted into stereo, or broadcasted as they are , or adjusted to the capabilities of the connected HDMI device. HDMI audio output format can PCM or bitstream.

The player can broadcast audio and video media embedding up to 8 audio channels. Analog output deliver stereo whereas numeric output HDMI and USB deliver 8 channels. You can take advantage of 8 channels using a multichannel amplifier or an audio extractor connected to the HDMI output. You can also plug a multichannel soundcard supporting USB Audio class. For this purpose, activate the function "Surround and multichannel sound" and select any of the 2 options "Always" or "Auto". By default, the selected option is "Never" and the player downmixes 8 channels to stereo channels. When choosing multichannel broadcast, you shall select the digital audio output to "bitstream".

14.2.8. Subtitles

Select subtitles display among 3 modes:

modalité	details	example
Enabled	Show subtitles when available	
Forced subtitles only	Show only forced subtitles	An original version of a video can embed subtitles even when subtitles are deactivated (elven is subtitled in english in the Lord of the rings).
Disabled	Never show subtitles	

The first favorite language will be displayed if present.

The second favorite language will be displayed if the first favorite langage is missing.

An embedded editor can modify the visual rendering of the subtitles.

14.2.9. Serial port

Set the serial port speed between 1200 and 115200 bps. Activate daisy chain mode to forward the data received on the serial port input to the serial port output. Set the identifier related to the serial link protocol.

14.2.10. Input contacts

Choose the input contacts that are normally open.

14.2.11. Printer

The player is compatible with Star TSP100 printer. Set the paper size used with this printer.

14.2.12. FTP server

Set a new login and a new password to access the embedded FTP server.

14.2.13. Web browser

Enable the web inspector for remote debugging. You can connect to it using Chrome or Chromium on port 9222.
Enable the system virtual keyboard.

14.2.14. Date and time

You can synchronize the device clock with a time server (requires internet connectivity) or with a computer. Select the timezone and the format of hours.

14.2.15. Language

Select between French and English (US).

14.2.16. Device identification

Give a name to your player through this menu.

14.2.17. Boot sequence

Display or not the animation and logo at power on.

14.2.18. System update

Update the firmware through the web if the player is connected to internet.
You can also erase all data from your device's internal storage, including system settings and multimedia files.

14.3. Scenario settings

14.3.1. Startup volume

Set the volume level when starting the scenario.

14.3.2. Autoplay folder

Select the folder number to play when starting the scenario,by default foder 0 is played.

14.3.3. Sources blocked by [NT]

Select the event sources that cannot interrupt the playback of a file flagged with an [NT] tag.

14.3.4. Input contacts

You can set a specific action to any combined input contacts. For example, read a folder, decrease the volume, go to standby, ...
By default each combined input contact select a folder to play.

14.3.5. Remote control

Assign actions to the following remote control buttons : red, green, yellow, blue, A and B.

14.3.6. Playback start synchronisation

Activate this feature in this menu. The port defines the player synchronization group. All the players in this group can synchronize playback together. To know more refer to ⟳ ⟳chapter "Synchronize players to start playback simultaneously" [p.36].

14.3.7. Volume notifications

The selected event sources can make the volume bar and the mute indicator visible.

14.3.8. Websites

The form is used to add new websites and automatically create the json file that indexes all web pages.
You may enter any http or https URL as long as the content provider can be trusted.
Websites can be displayed using the [WEBS x] and [WEBE x] tags on media files and folder names.
To display content stored on the connected media storage, copy your HTML content into the "www" folder, then create a website using a URL prefixed with "http://localhost/www/".

14.4. System control

14.4.1. Video playback

Control the playback of the player, select a folder to play and adjust the volume.

14.4.2. Power state

Select if you want to go to standby, wakeup from standby or restart the player. You can also standby or wake up a CEC compatible monitor. Finally you can power on or power off a video projector compatible with PJLink protocol.

14.4.3. Neighborhood

The list of neighboring Waves System devices can be updated by clicking on the Refresh button.

14.4.4. Console

14.4.5. File manager

This screen gives direct access to all storage locations to create, edit , rename and to drag and drop content.