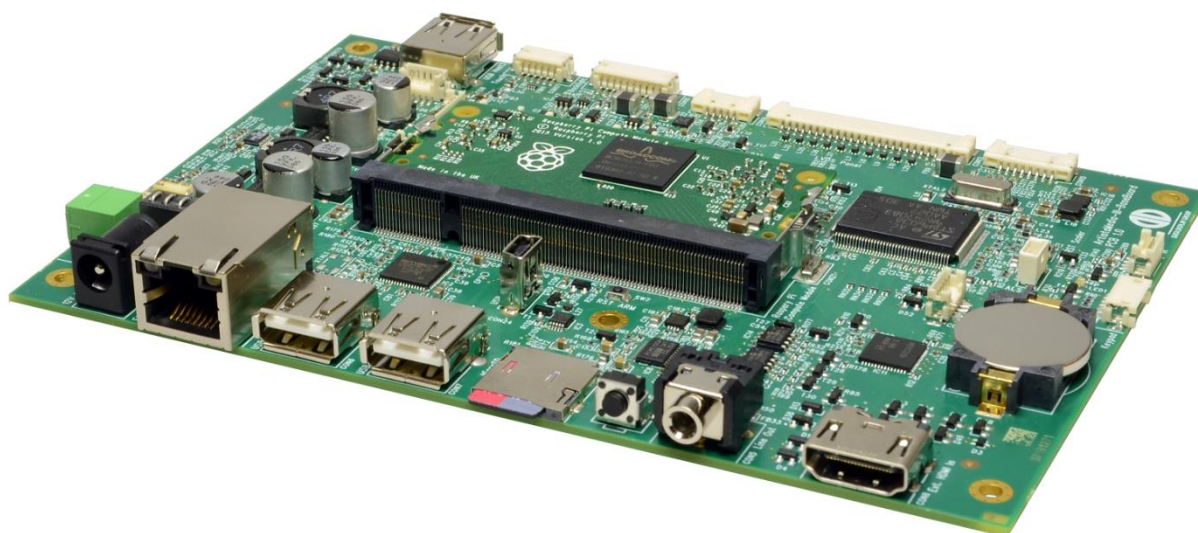# Manual

Fortec Integrated

VideoPoster-IVS

Industrial FHD Media Player based on Raspberry Pi CM4S+

PA-48-XXX

Version 1.0

18.09.2025

FORTEC
UNITED STATES

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INTEGRATED

FORTEC
UNITED KINGDOM

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1   Revision History

Date	Rev.No.	Description	Page
18-09-2025	1.0	Initial version	All

2 Introduction

VideoPoster-IVS is an industrial media player based on Raspberry Pi Compute Module 4S (CM4S) for displaying shows containing still images and video clips. On start-up, it automatically loops over a playlist until a content update is detected.

Updates for the show can be distributed over various sources. They can be detected on hot-plugged USB flash drives or directly be uploaded to the device via network. Another method to receive content updates is to configure the device for periodically polling a remote FTP server.

3 Features

- Auto-play and auto-loop of playlist after power on
- Playback of Full-HD videos and still images
- H.264 (MPEG-4, Part 10) video decoding up to 1080p30
- Seamless video playback
- Various transition effects for still images
- Content update via USB flash drive or network
- Auto Content Update from remote FTP server
- Playlist scheduling
- Playlist triggering via network, RS-232 and USB button board
- Wi-Fi connectivity via USB Wi-Fi adapter
- 8 GB, 16GB and 32 GB internal flash memory to store content (depends on the used Raspberry Pi Compute Module)
- Optional MicroSD card up to 128 GB to store content
- External HDMI input to connect other HDMI sources to the display
- Stereo audio line out
- Free Windows® software ACC for easy playlist generation and distribution
- Free Windows® software Artista Device Finder to find the devices in the local network
- HttpCtrl programming interface for system integrators

4 Software

4.1 ACC

ACC is free Windows® software to generate and distribute content for VideoPoster-IVS conveniently.

Features:
- Create playlists with videos and images
- Define trigger events to switch between different playlists
- Encode videos if the current format is not supported by VideoPoster-IVS
- Export the playlist to an USB flash drive, if VideoPoster-IVS is not connected to network
- Administrate VideoPosters connected to the local network (LAN) in the Device Manager
- Transmit playlists over network directly to the media player
- Monitor the current status of the connected VideoPosters

For further details please refer to the ACC manual.

The latest version of the ACC software can be downloaded here:
https://www.fortec-integrated.de/en/service/downloads/videoposter-downloads/
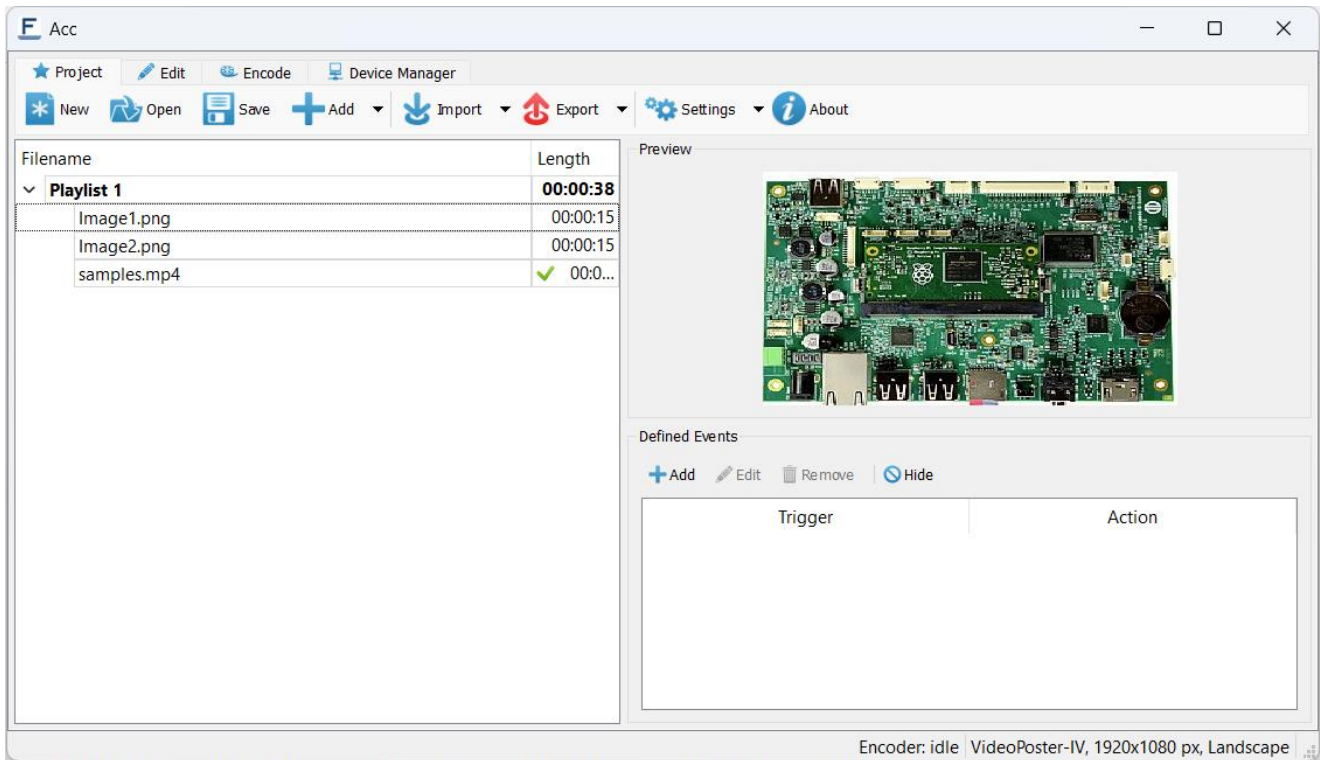
4.2 Artista Device Finder

Artista Device Finder is free Windows® software to find and configure VideoPoster-IVS devices in the local network. This works even if the network interface of the media player is not configured correctly yet.

Features:
- Scan the local network for connected VideoPosters
- Configure the network interface of the device. E.g. enable / disable DHCP, change the hostname, IP address, etc.
- Open the web frontend of VideoPoster-IVS in the web browser for further device configuration
- Export the network connection data to be imported into ACC later

For further details please refer to the Artista Device Finder manual.

The latest version of Artista Device Finder software can be downloaded here:
https://www.fortec-integrated.de/en/service/downloads/videoposter-downloads/
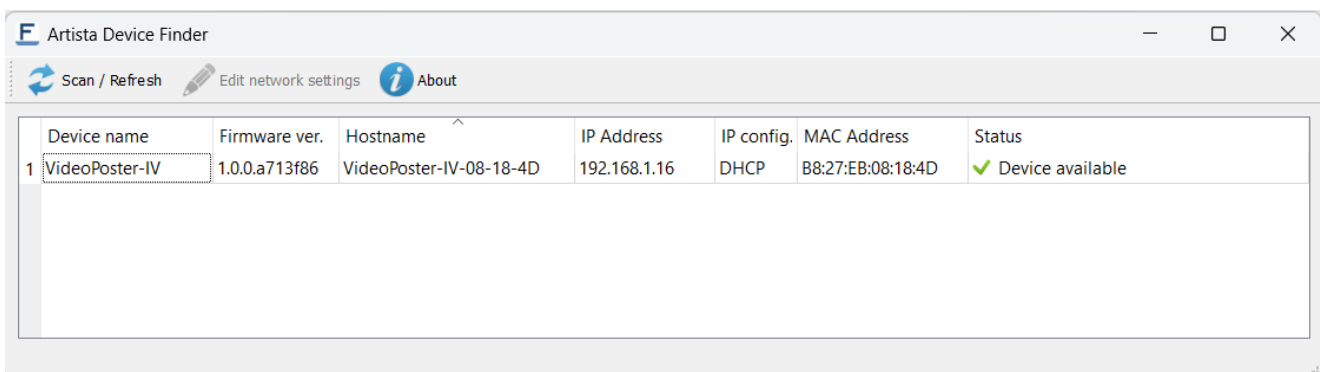
5 Device Configuration via Web Browser

The VideoPoster-IVS configuration interface can be accessed with any common web browser like Firefox, Chrome, Internet Explorer, and many others. You can establish the connection by using the Windows software Artista Device Finder or by typing the IP address of your device into the browser manually. The current IP address of VideoPoster-IVS is displayed on the screen during the system start after power on. When you are asked for the device password, use the default password (see Default VideoPoster-IVS Configuration).
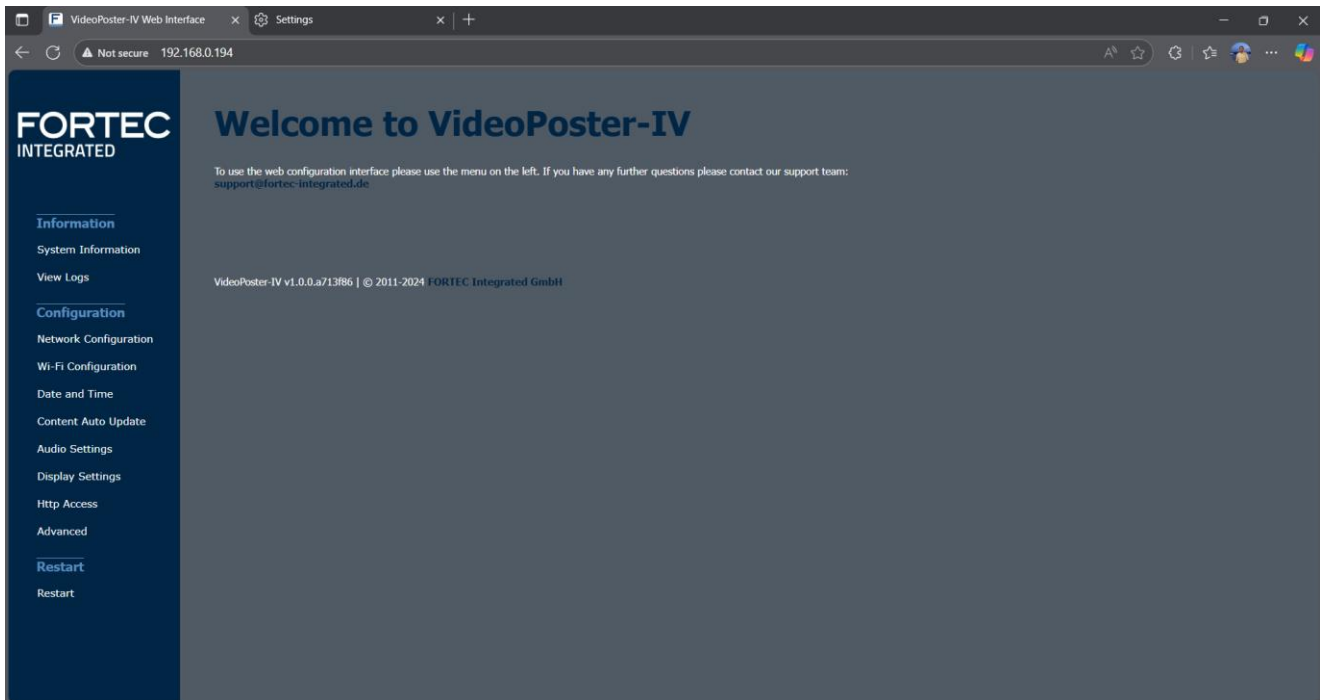
The menu on the left gives access to the various functions provided by the web frontend.

5.1 System Information

This page provides details about the system. If you should have any technical questions for our support team, please attach the displayed information page to your e-mail. This will speed up processing of the inquiry.
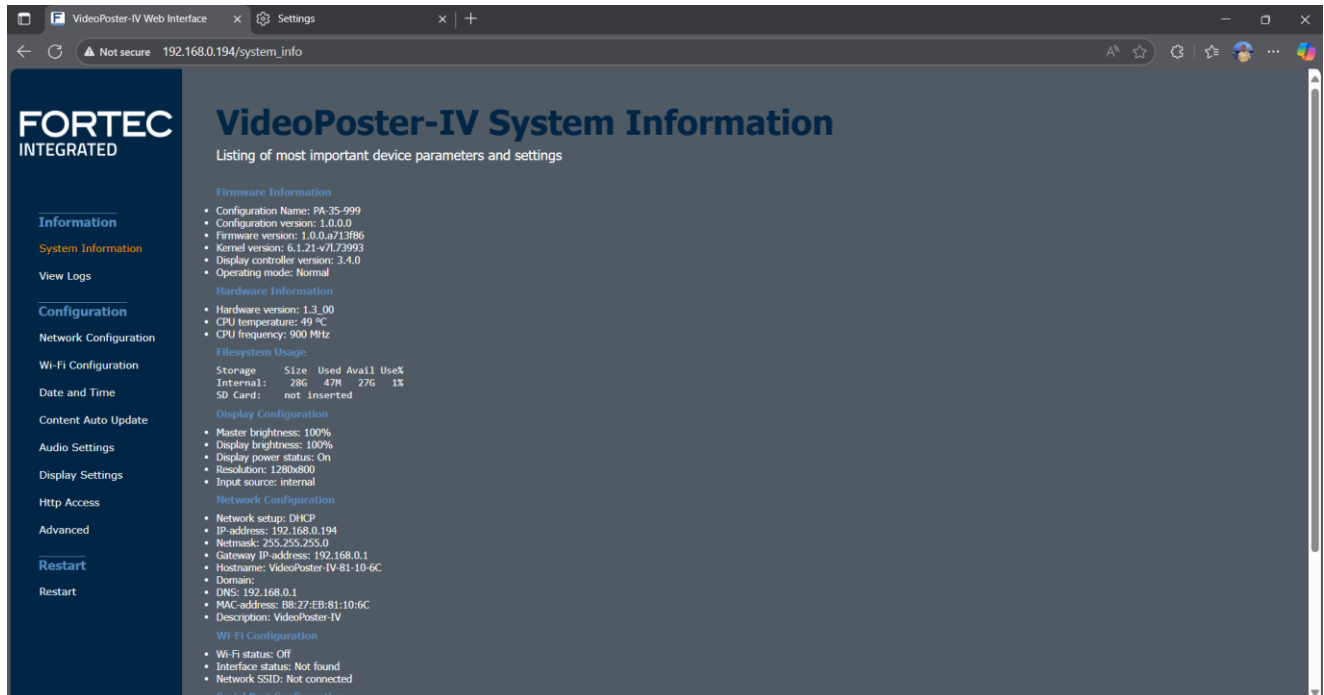
5.2 View Logs

VideoPoster-IVS operation can be monitored through its log files. There are several dedicated log files on the board, each committed to logging of a particular subsystem:

- Player – shows content playback status and error messages
- Updater – shows content update status or error messages
- Setup Manager – shows which setup files have been executed on the board
- Event Manager – shows errors related to event processing

The log files can be erased by clicking "Clear".

5.3 Network Configuration

The first step in configuration of the VideoPoster-IVS is setting up its network parameters. The settings entered can be applied by clicking "Submit configuration". "Reset configuration" can be used to reset all fields. This will have no effect on the actual configuration settings - only the form inputs will be cleared.

5.3.1 Using DHCP

To use DHCP for network configuration, tick the "Use DHCP" checkbox. If the device should be reachable by its hostname, the DHCP server must be able to pass hostnames to the DNS. The default hostname of VideoPoster-IVS has the following form: VideoPoster-IVS -xx-xx-xx (VideoPoster-IVS - followed by the last 3 bytes of its MAC address) but can be set to something more descriptive if needed. The network settings will be displayed on the splash screen shown during start-up of the device.
If DHCP setup fails, the device's network will be configured with its default settings (see Default VideoPoster-IVS Configuration).

5.3.2 Using Static IP Addresses

To use a static network configuration for VideoPoster-IVS, disable the "Use DHCP" checkbox. In this mode the following network parameters can be set manually:
- IP address of VideoPoster-IVS
- Netmask
- IP address of the Gateway
- Hostname of VideoPoster-IVS
- Domain
- IP address of the Nameserver (one or more Nameserver addresses separated by space)

When using a static IP address it must be assured that this address is not used by any other device connected to the network. Please contact your network administrator for details and configuration parameters.

5.4 Wi-Fi Configuration

With firmware version 1.2.0 and above VideoPoster-IVS can be connected to wireless (Wi-Fi) networks.

To use VideoPoster-IVS with Wi-Fi networks, one of the following USB Wi-Fi adapters is required:

PC-04-032	Raspberry Pi USB WiFi Adapter
PC-04-034	EDIMAX EW-7811UN Wireless USB Adapter
PC-04-035	EDIMAX EW-7811UN V2 Wireless USB Adapter
PC-05-071	DELOCK 12462 WLAN Stick/Antenna USB 2.0

Detailed information about the supported network connections of VideoPoster-IVS :
- VideoPoster-IVS can use either wired network (LAN) or wireless (Wi-Fi) network. It is not possible, to use both network connections at the same time
- The wired network connection has a higher priority than the Wi-Fi network connection. That means that the wireless network connection is used, if the Wi-Fi connection is configured properly and the network cable is NOT connected to VideoPoster-IVS
- VideoPoster-IVS can connect to just one Wi-Fi network at the same time

Supported Wi-Fi security standards:
- WPA / WPA2PSK   (recommended)
- WEP
- None

Wi-Fi connection status details:

Status	Description	Conditions
Authentication failed	A wrong security key has been used. Press the button "Remove" to remove the connection and add it with the correct security key again	VideoPoster-IVS is currently connected via wired (LAN) network. The corresponding Wi-Fi network is currently in the range of VideoPoster-IVS
Connected	The new Wi-Fi connection has been stored and can be used after a restart of VideoPoster-IVS. Make sure, the network cable is disconnected from VideoPoster-IVS at power on	VideoPoster-IVS is currently connected via wired (LAN) network. The corresponding Wi-Fi network is currently in the range of VideoPoster-IVS
	VideoPoster-IVS is connected and using the corresponding wireless (Wi-Fi) network	VideoPoster-IVS is currently connected via the corresponding wireless (Wi-Fi) network
Not connected	The corresponding Wi-Fi connection is stored on VideoPoster-IVS but is currently not connected since another Wi-Fi connection is connected already. VideoPoter-IVS can just connect to one Wi-Fi network at the same time	VideoPoster-IVS is currently connected via wired (LAN) or wireless (Wi-Fi) network. The corresponding Wi-Fi network is currently in the range of VideoPoster-IVS
Not in range	The corresponding Wi-Fi network is stored on VidePoster-IV but is currently NOT in the range of VideoPoster-IVS	VideoPoster-IVS is currently connected via wired (LAN) or wireless (Wi-Fi) network. The corresponding Wi-Fi network is currently NOT in the range of VideoPoster-IVS
Unknown	The corresponding Wi-Fi network is currently in the range of VideoPoster-IVS but is NOT stored on VideoPoster-IVS	VideoPoster-IVS is currently connected via wired (LAN) or wireless (Wi-Fi) network. The corresponding Wi-Fi network is currently in the range of VideoPoster-IVS

Steps to setup a Wi-Fi connection with VideoPoster-IVS :

- Disconnect VideoPoster-IVS from power supply
- Connect VideoPoster-IVS via a patch cable to a wired network (LAN)
- Insert the USB Wi-Fi adapter into a free USB port of VideoPoster-IVS
- Power on VideoPoster-IVS and wait until the message "No playlist" or the content appears on the screen
- Connect to the web frontend of VideoPoster-IVS with a web browser. Details about this can be found here: **Error! Reference source not found.**
- Select the menu "Wi-Fi Configuration"
- Make sure, the interface status is "Wi-Fi interface active". That means, that the USB Wi-Fi adapter is detected by VideoPoster-IVS
- Enable the checkbox "Enable Wi-Fi"

a.) Scan for Wi-Fi networks in the range of VideoPoster-IVS and connect to it:

- Press the button "Scan" to find all Wi-Fi networks detected by VideoPoster-IVS
- Enter the "Security Key" of the Wi-Fi network to be used
- Press the button "Add" to save the network parameters accordingly
  - o VideoPoster-IVS tries to connect to this network
  - o Press the button "OK" after 5 seconds to return to the "Wi-Fi Configuration" page
  - o Check the status of the Wi-Fi network connection. It must be "Connected". That means, that VideoPoster-IVS is able to connect to the Wi-Fi network, but it is not used yet
- Disconnect VideoPoster-IVS from wired network (LAN)
- Restart VideoPoster-IVS to connect it to the Wi-Fi network
- The network parameters of VideoPoster-IVS are shown during startup on the screen (IP address, network mask and Gateway IP)

b.) Manually add Wi-Fi networks currently out of range of VideoPoster-IVS:

- Enter the "Network SSID" of the Wi-Fi network to be used
- Enter the "Security Key" of the Wi-Fi network to be used
- Select the "Security Standard" of the Wi-Fi network to be used
- Press the button "Add" to save the Wi-Fi network configuration on VideoPoster-IVS.
- Bring VideoPoster-IVS to the installation place and start it without attached network cable. It connects to the preconfigured Wi-Fi network automatically then

5.5 Date and Time

The time zone and the current time of your location can be set here. Setting the correct time is important if you plan to use playlist scheduling.

Setting the time zone of your location:
- Select the menu "Data and Time"
- Select the tab "Time zone"
- Select the continent and town of your location
- Click "Change" to store your selection
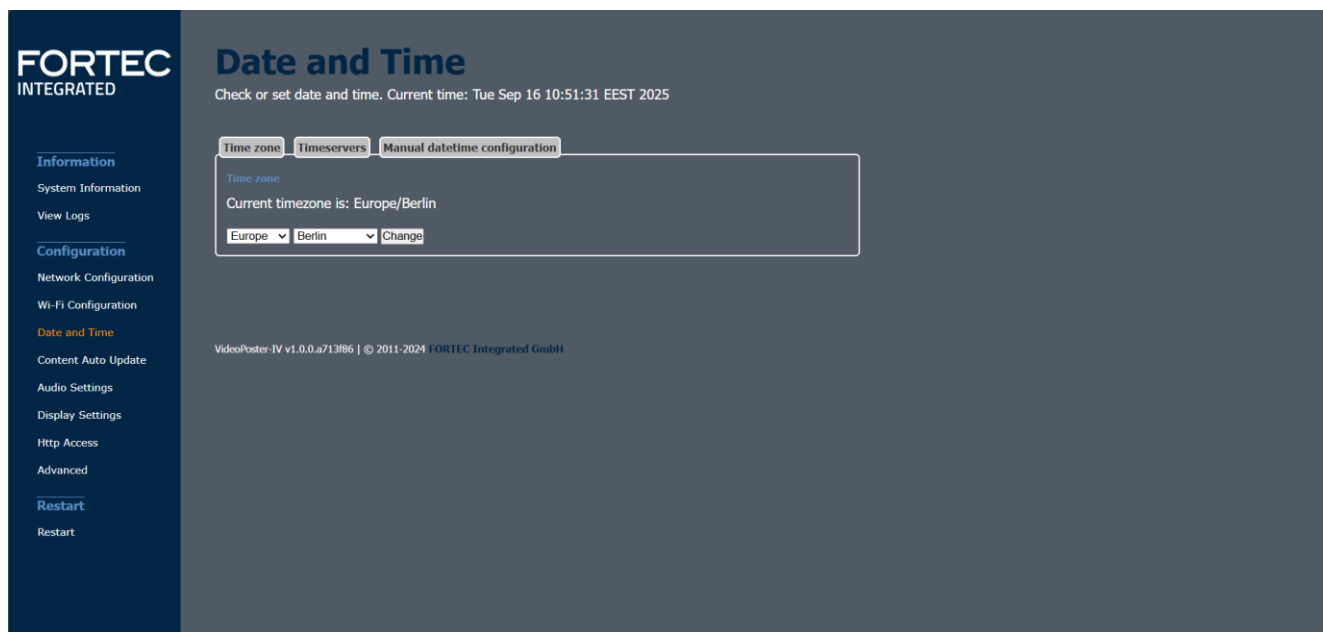
Enable usage of time servers:
Time servers in the local area network (LAN) or internet can be used to automatically synchronize the time of VideoPoster-IVS with the local time.
Execute the following steps to enable them:
- Select the menu "Data and Time"
- Select the tab "Timeservers"
- Enter the address of the time servers of your choice or leave the preselected standard time servers
- Click "Use timeservers"

Note:
- To verify, if the usage of time servers has been enabled, check the red status message in the tab "Time servers":
  - o Disabled: Time servers are currently NOT in use
  - o Enabled: Clock is synchronized to the time server
- To verify, if the device is really synchronized to the time server, check the "System Information":
  - o Select the menu "System Information"
  - o Check the "NTP details" in the "Date and Time" section
    - ▪ Not synchronized: Message "No association ID's returned"
    - ▪ Synchronized: Table with valid NTP details is displayed
- Usually it takes a few seconds until VideoPoster-IVS is synchronized to the time server
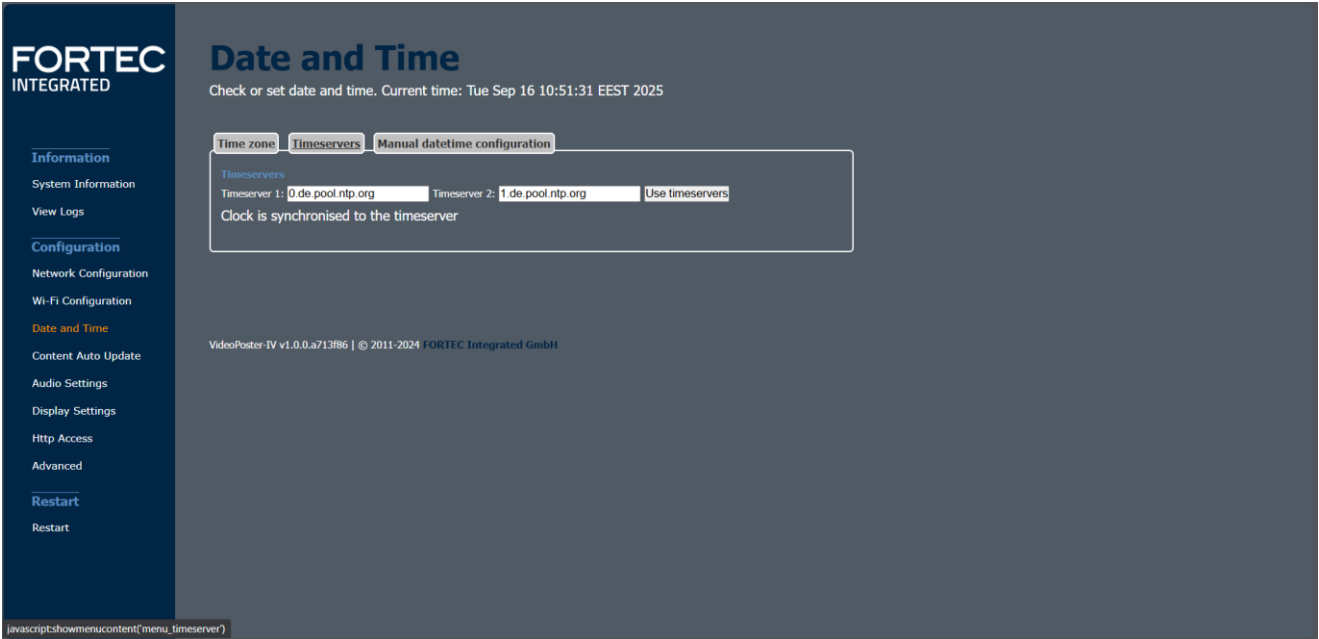
Manual date and time configuration:

The local date and time can also be set manually. Since VideoPoster-IVS has a battery buffered Real Time Clock (RTC) on-board, the current setting is valid even if the device is not supplied with power.

- Select the menu "Data and Time"
- Select the tab "Manual datetime configuration"
- Enter the current date and time
- Click "Set new Date and Time"
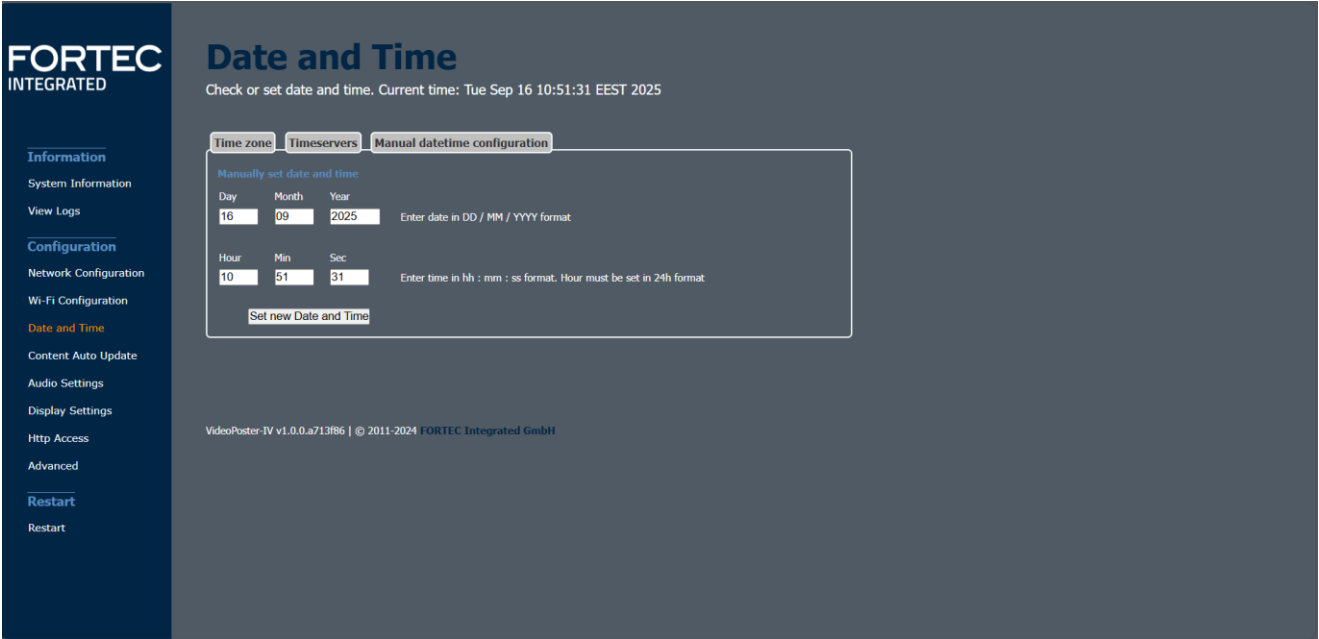
5.6 Content Auto Update

VideoPoster-IVS can periodically poll a remote FTP server for new playlists using a given interval. This menu allows you set up the connection to a remote FTP server that provides playlist updates.

To setup content auto update the following form fields must be filled out:
- Check the *Enable polling* checkbox to activate polling (disabled by default)
- Enter hostname or IP of the FTP server in the *FTP server* field
- Enter the number of the FTP server's port (usually 21) in *FTP port*
- Provide a valid username and password in the *Username* and *Password* fields
- In *Playlist dir* provide the path on the remote server where the PlaylistContent directory is located. Please do not append "PlaylistContent" to this path and make sure that the folder exists!
- The *Polling interval* field is used to specify the interval between polls in seconds

On submit a connection check will be executed. If the browser lists the contents of the PlaylistContent directory on the FTP server all settings are correct and polling will be enabled. For backward compatibility when the PlaylistContent directory is missing the device will use the directory specified in *Playlist dir* directly instead.

VideoPoster-IVS uses the following sequence for content update:
- Check the **playlist.ddx** file on the FTP server. If its size or last modified time has changed since the last download, the file will be downloaded
- Verify playlist file properties to make sure it can be played on the device. If it can't, it will be discarded.
- Check which media files are new or changed and thus not available locally yet
- Download all new media files and store them locally. If any file is missing, the playlist will be discarded.
- On success stop playback and move all downloaded files from the intermediate download directory to the live directory.
- Delete all outdated media files from the local storage and schedule new show for playback
- Restart playback with the new playlist

The device is also able to just update individual files in the playlist. This is intended for situations where some items of the playlist are provided by a third party. These items must be marked as *extern* in the playlist – please see playlist specification documentation for details.

5.7 Audio Settings
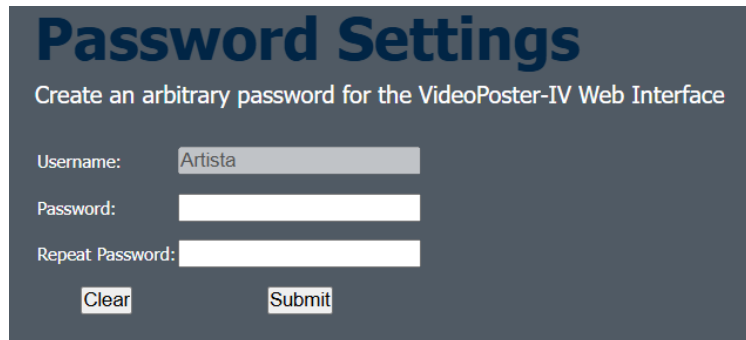
This page can be used to set a master volume level for audio playback. Its allowed values range from 0% to 100%. Volume values given in the playlist are regarded as per cent from this value.

5.8 Display Settings

This page can be used to set a master brightness level for video display. Its allowed values range from 0% to 100%. Brightness values given in the playlist are regarded as per cent from this value.

5.9 Http Access

The password for accessing the web frontend can be changed by using the following menu:
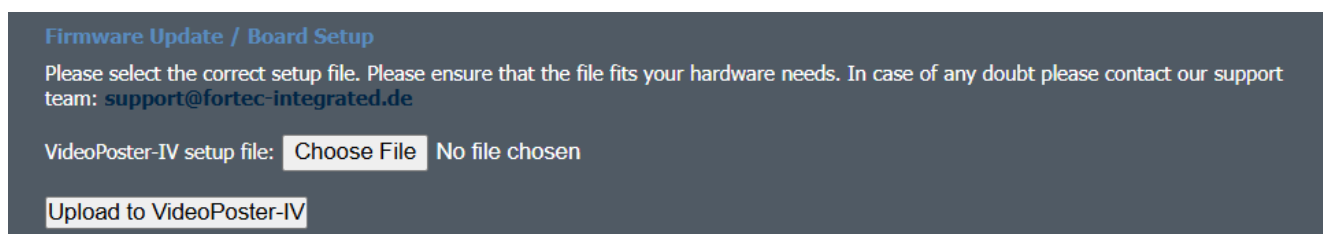
The new password must be entered twice to prevent the device from being inaccessible due to typing errors. Form data can be reset by clicking "Clear". By pressing "Submit" the new password will be activated and you will have to re-login on changing to any other page of the web frontend.

5.10 Advanced

In Advanced Options you can choose to update VideoPoster-IVS firmware, change its hardware configuration, or format the SD card, if available.

5.10.1 Firmware Update / Board Setup

The following function can be used to apply firmware update or setup packages to VideoPoster-IVS .

Please contact your sales contact in the FORTEC Group to get the required file.

To check information about your device, select *System Information* from the menu on the left.
Please make sure that the firmware update or setup file you are going to install is compatible with your hardware.

Click the *Browse* button and then choose the correct firmware update or setup file.
Then press *Upload to VideoPoster-IVS* to upload and install the software on the device.

Warning:
Do not power off your device while the update process is running!
This can damage the hardware!

5.10.2 Artista Device Finder Support

Here you can enable or disable support for the Artista Device Finder tool. If enabled (default), network configuration can be done remotely from a PC connected to the same **physical** network (for browser access, the PC and the device have to be in the same subnet, for Artista Device Finder this is not mandatory). Please see the Artista Device Finder manual for more information.

5.10.3 HDMI Input Priority

The external HDMI input port of VideoPoster-IVS can be used to show content from an external HDMI source like PCs, media players or Set-Top-Boxes on the screen. Per default, the external player has priority over the on-board media player but this can be disabled.

If the HDMI input priority is enabled, the video signal coming from the external HDMI input port is displayed on the screen instead of the signal coming from the internal media player. If the external HDMI source is disconnected or switched off, the system switches back to the internal media player automatically. If HDMI input priority is disabled, the external HDMI input signal is ignored.

Click the button to disable or enable the HDMI input priority accordingly.

5.10.4 Serial Port Configuration

The baud rate of the serial port of VideoPoster-IVS can be configured to one of the following values: 1200, 2400, 9600, 19200, 57600, 115200

The default value is 19200.

To change the baud rate, select the desired value via the drop down menu and click "Submit configuration".

5.10.5 Media Storage Formatting (Memory Card)

An external microSD card can be used to go beyond the eMMC memory size.
This card must be formatted with this function in VideoPoster-IVS before it can be used. Using Windows® compatible FAT32 formatted microSD cards is no option, because the data can easily get corrupted due to sudden power loss of VideoPoster-IVS.

Note: After formatting, all files will be deleted, and the new file system will not be usable with any version of Windows®

Formatting the memory card may take a while (around one minute, depending on the card size). Please **do not leave the formatting page or switch off the device** and wait for a confirmation report to be printed. Also a splash screen containing a status message will be displayed on your device's screen while formatting.

Click "Format Media Storage" and confirm the warning dialog by clicking "OK" to start formatting.

5.10.6 Master Reset

Master reset sets all configuration parameters of VideoPoster-IVS back to their factory default values, clears the internal storage and reboots the device!

Click "Perform Master Reset" to execute this function and wait until VideoPoster-IVS has restarted.

5.11 Restart

In some cases it might be necessary to restart VideoPoster-IVS. The device will automatically restart in 10 seconds, but can also be restarted immediately by clicking the *Restart* button. Press *Stop* if you got on this page by mistake and don't need to restart.
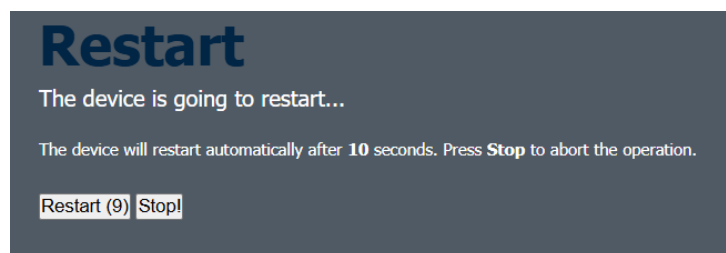
6 Default VideoPoster-IVS Configuration

Default Network Configuration:

Parameter	Default Value	Notes
DHCP	Enabled	
IP Address	192.168.0.1	Default IP address, if no DHCP server is available
Netmask	255.255.255.0	Default netmask, if no DHCP server is available
Hostname	VideoPoster-IVS-xx-xx-xx	xx-xx-xx represents the last 6 bytes of the device's MAC address

Default Login Data:

Parameter	Default Value	Notes
Login Name	Artista	Not configurable
Password	Artista	

7 Playlist Upload

VideoPoster-IVS supports three upload procedures: via USB, direct content upload with the ACC software and by polling of remote FTP servers. Please check the playlist type and display resolution prior to uploading to the device. If they don't match the playlist will be refused, and the old one will continue playing.

Detailed information about the supported media file formats can be found in section Supported Media Formats

7.1 USB Upload

To upload via USB insert a USB pen drive which has the show in the PlaylistContent directory contained in the drive's root, and the device will automatically detect and copy its content. It is safe to remove the flash drive when the show starts playing. ACC can be used to create shows and export them to the USB drive.

7.2 ACC Push Upload

ACC must be used to upload content to VideoPoster-IV. In ACC you have to setup a network connection to VideoPoster-IV device and commence upload (see ACC manual for details). The device will detect the upload and if it contains a valid playlist, will automatically start playing it.

7.3 Polling of Remote FTP Server

This mode is turned off by default, so it must first be activated and correct settings for network connection to the remote server must be provided (see **Error! Reference source not found.**). Once this is done, the device will poll the PlaylistContent folder on the remote server for playlist updates. You can use ACC to upload shows to FTP server.

Normally, only the playlist.ddx file is checked for changes. If a particular item has to be checked for changes the attribute "extern=true" has to be added to its <src> element (see Playlist Example). VideoPoster-IV will additionally poll these items and update them even if the playlist remains unchanged.

7.4 Playlist Example

This is an example playlist file for VideoPoster-IV. The file must be named **playlist.ddx**. Image files referenced in <src> tags must exist, or the playlist will be refused. The devices also checks <devType>, <xRes> and <yRes> tags against its internal values and refuses the playlist if any of them do not match.

<ts> and <md5> tags are used to prevent unnecessary copying on update if the new playlist contains the same file.

```
<?xml version="1.0" encoding="UTF-8"?>
<artistaProject version="1.6.0">
   <prjProp>
      <prjTitle>Project1</prjTitle>
      <prjTs>1757579196</prjTs>
   </prjProp>
   <prjCont>
      <device>
         <devProp>
            <devType>VIPO-IV</devType>
            <devMinFwVer>1.0.0</devMinFwVer>
```

```xml
        </devProp>
        <devCont>
          <display>
            <dispProp>
              <dispOrient>0</dispOrient>
              <dispRes>
                <xRes>1920</xRes>
                <yRes>1080</yRes>
              </dispRes>
            </dispProp>
            <dispCont>
              <playlist>
                <plProp>
                  <plTitle>Playlist 1</plTitle>
                  <plLenms>15000</plLenms>
                  <plVol>100</plVol>
                  <plBrt>100</plBrt>
                  <plTransition>
                    <plTranMode>Random</plTranMode>
                    <plTranOrigin>Center</plTranOrigin>
                    <plTranDir>0</plTranDir>
                    <plTranTiles>1</plTranTiles>
                    <plTranLenms>1000</plTranLenms>
                  </plTransition>
                </plProp>
                <plCont>
                  <item>
                    <src>image1.png</src>
                    <md5>eb414b52052cd29a1215a5a8e4096a07</md5>
                    <ts>1756901666</ts>
                  </item>
                  <item>
                    <src>image2.png</src>
                    <md5>96ee298c010e5d32bc0667b5c6e7cbec</md5>
                    <ts>1756901972</ts>
                  </item>
                  <item>
                    <src>image3.png</src>
                    <md5>96ee298c010e5d32bc0667b5c6e7cbec</md5>
                    <ts>1756901975</ts>
                  </item>
                </plCont>
              </playlist>
              <playlist>
                <plProp>
                  <plTitle>Playlist 2</plTitle>
                  <plLenms>15000</plLenms>
                  <plVol>100</plVol>
                  <plBrt>100</plBrt>
                  <plTransition>
                    <plTranMode>Random</plTranMode>
                    <plTranOrigin>Center</plTranOrigin>
                    <plTranDir>0</plTranDir>
                    <plTranTiles>1</plTranTiles>
                    <plTranLenms>1000</plTranLenms>
                  </plTransition>
                </plProp>
```

```xml
            <plCont>
                <item>
                    <src>ImageC.png</src>
                    <md5>2db0bcbd18686f05e1dda1112994625e</md5>
                    <ts>1731938901</ts>
                </item>
                <item>
                    <src>imageA.png</src>
                    <md5>3a4f00854e107d562621437313e42048</md5>
                    <ts>1731938890</ts>
                </item>
                <item>
                    <src>imageB.png</src>
                    <md5>6d11c28fd1b44b4d3b1cb702a1209654</md5>
                    <ts>1732024684</ts>
                </item>
            </plCont>
        </playlist>
    </dispCont>
    <dispEvents>
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                <minute>00</minute>
                <hour>00</hour>
                <day>*</day>
                <month>*</month>
                <weekday>1,3,4</weekday>
            </timeTrigger>
            <playlistAction>
                <plAct>play</plAct>
                <plRef>Playlist 1</plRef>
                <plRepeats>forever</plRepeats>
                <plInterruptible>yes</plInterruptible>
                <plResume>no</plResume>
            </playlistAction>
        </event>
        <event>
            <timeTrigger>
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                <hour>04</hour>
                <day>*</day>
                <month>*</month>
                <weekday>*</weekday>
            </timeTrigger>
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                <plRef>Playlist 2</plRef>
                <plRepeats>forever</plRepeats>
                <plInterruptible>yes</plInterruptible>
                <plResume>no</plResume>
            </playlistAction>
        </event>
    </dispEvents>
    </display>
    </devCont>
    </device>
</prjCont>
```

</artistaProject>

8 Multiple Playlists

More than one playlist can be defined in the ddx file. Playback of one of these can be started by using several trigger methods. One is to specify a schedule which will start a playlist at a given point in time or switch the device to a power save mode. Another is to define triggers for certain events which can start a playlist or put the device to power save mode. Please refer to the ACC manual and playlist specification for more details.

9 Transition Effects

VideoPoster-IVS recognizes image transition effects which can be specified in the playlist. For each transition the following parameters can be defined:

- Mode (default *none*)
- Origin (default *top* or *center,* depending on mode)
- Length in milliseconds (default 1000*,* max 15000, 0 means as fast as possible)
- Tiles (values 1..250 or *random*. Default is 1)

Transition effects can be specified for the whole playlist and for specific items. Parameters defined on items override playlist effects (see example on the next page).

Possible transition effect modes are:

Mode	Description
none	Swap immediately
dissolve	Swap pixels at random position
wipe	Swap image line by line
curtain	Swap image line by line starting at both ends
circle	Circular wipe
clock	Clock wipe
random	Use random effect each time

Possible transition effect origins are:

Origin	Description
center	From center to edge
edge	From edge to center

Possible direction values are:

Direction	Description
0	Bottom to top
45	Bottom-left to top-right
90	Left to right
135	Top-left to bottom-right
180	Top to bottom
225	Top-right to bottom-left
270	Right to left
315	Bottom-right to top-left
Random	Random direction, one of the above

The tiles parameter specifies the number of subdivisions in the given direction. Tiles have no effect for dissolve mode.

If you select random for tiles number, the number of tiles will always be between 0 and 10, with lower numbers occurring much more often:

Tiles	Occurrence (%)
1	33,06
2	14,05
3	12,40
4	10,74
5	9,09
6	7,44
7	5,79
8	4,13
9	2,48
10	0,83

10 Logging to Content Sources

VideoPoster-IVS has the ability to write back log files containing information about the last content update or setup operation to the different content sources. For FTP pull these will go to a *log* directory in the path specified during FTP configuration (see **Error! Reference source not found.**). If content update was triggered by USB pen drive insertion the log file will be in a directory named *log* contained in the drive's root. An update triggered by upload from ACC will result in a log file saved locally on the VideoPoster-IVS which can be retrieved by an ACC function (see ACC manual for more information).

11 Firmware Update

This chapter describes how to update the firmware of VideoPoster-IVS.

Name of the firmware update file:
setup_VideoPoster-IVS _Firmware_Update_vV.E.R.S.bin
"V.E.R.S" is a placeholder for the new firmware version number (e.g. "1.2.0.58835")

It can be installed on the following board configurations:
Check the "VideoPoster-IVS Release Notes" for further details

It can be installed on the following firmware versions:
Check the "VideoPoster-IVS Release Notes" for further details

ATTENTION:
The power supply for VideoPoster-IVS must NOT be interrupted during the firmware installation because this can damage the product!

The VideoPoster-IVS restarts after the firmware installation automatically. This is normal behavior

Preparations before the firmware update:
- Download the firmware zip file "VideoPoster-IVS_Firmware_Update_vV.E.R.S.zip" and save it on your computer

- Extract the contained firmware file and install this on your VideoPoster-IVS as described in the next section

The new firmware can be installed on VideoPoster-IVS by using one of the following methods:

11.1 Upload the new Firmware via Web Frontend

- Open the web frontend of VideoPoster-IVS
- Select the menu "**Advanced**"
- Browse the firmware update file in the section "**Firmware Update**" and press the button "**Upload to VideoPoster-IVS** "
- Wait up to 4 minutes and consider the messages in your browser until the installation has finished

11.2 Upload the new Firmware via USB Flash Drive

- Copy the firmware update file into the root directory of an empty USB flash drive
- Insert the USB flash drive into the USB port of your VideoPoster-IVS
- Read the status messages on the display
- Wait up to 4 minutes until the installation has finished
- Verify if the installation was successful. To do so, insert the USB flash drive into a PC and open the log-file called "setup_VideoPoster-IVS _Firmware_Update_vV.E.R.S.log". Check the messages in this log file. For a successful update the last line states:
  "Update complete, current FW version is V.E.R.S"

11.3 Upload the new Firmware via ACC 4.x

- Open the Windows software ACC version 4.0.0 or above
- Select the tab "**Device Manager**"
- Select the device you want to update (must be added to the "**Device Manager**" before)
- Open the context menu of the device (right click on the device)
- Select the menu entry "**Upload Setup File to Device**"
- Browse the firmware update file
- Press the "**OK**" button in the appearing dialog to upload the file to the device
- Wait up to 4 minutes until the installation has finished with a "**Success**" message

11.4 Download the new Firmware from an FTP Server

- Configure the VideoPoster-IVS to poll playlists from a FTP server (this can be done in the web frontend in menu "**Content Auto Update**")
- Create the folders "**setup**" and "**log**" in the playlist directory on the FTP server
- Upload the firmware update file to the "**setup**" directory by using ACC 4 or a standard FTP client (e.g. FileZilla)
- When next polling interval of VideoPoster-IVS occurs, it downloads the firmware update file and installs it automatically
- The installation of the new firmware takes up to 4 minutes
- Verify if the installation was successful. To do so, open the log-file called "XX-XX-XX-setup_VideoPoster-IVS_Firmware_Update_vV.E.R.S.log" in the log directory on the FTP server (XX-XX-XX is a placeholder for a unique prefix representing the last 3 digits of the MAC address of VideoPoster-IV). Check the messages in this log file. For a successful update it states: "Successfully applied setup package!"

12 Supported Media Formats

The tables below describe which video and image formats are supported by VideoPoster-IVS.

Supported video formats:

Supported Container Format	File Extension	Video Codec	Audio Codec (1)
MPEG Transport Stream	.m2ts	MPEG-4 AVC / H.264	AAC LC
	.ts	MPEG-4 AVC / H.264	AAC LC
MPEG-4	.mp4	MPEG-4 AVC / H.264	AAC LC
QuickTime	.mov	MPEG-4 AVC / H.264	AAC LC
Flash Video	.f4v	MPEG-4 AVC / H.264	AAC LC

(1)   An audio stream in the file is not mandatory

Detailed description of supported video Codecs:

Video Codec	Parameter	Supported Values	Detailed Information
MPEG-4 AVC / H.264	Profile	up to High Profile	
	Level	up to Level 5.1	
	Video Resolution	up to 1920 x 1080	
	Bit Rate	up to 25 Mbps	Mbps: Mega bit per second
	Frame Rate	up to 30 fps	fps: frames per second
	Scan Mode	Progressive Scan	
	Aspect Ratio	16:9	

Detailed description of supported audio Codecs:

Audio Codec	Parameter	Supported Values	Detailed Information
AAC LC	Profile	Low Complexity	
	Sample Rate in kHz	48	up to 288 kbit/sec per channel
		44.1	up to 264 kbit/sec per channel
		32	up to 192 kbit/sec per channel
		24	up to 144 kbit/sec per channel
		22.05	up to 132.3 kbit/sec per channel
		16	up to 96 kbit/sec per channel
		12	up to 72 kbit/sec per channel
		11.025	up to 66.15 kbit/sec per channel
		8	up to 48 kbit/sec per channel
	Bit Rate in kbit/sec	up to 288	per channel
	Channels	Mono	
		Stereo	

Supported image formats:

Supported Image Format	File Extension	Parameter	Supported Values
Bitmap	.bmp		
JPEG	.jpg	Resolution	up to 1920 x 1080
Portable Network Graphics	.png		

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GROUP

Our company network supports you worldwide with offices in Germany, Austria, Switzerland, the UK and the USA. For more information please contact:

FORTEC
GROUP

FORTEC Elektronik AG | Augsburger Straße 2b | 82110 Germering
+49 89 894450-0
info@fortecag.de | www.fortecag.de

FORTEC
INTEGRATED

FORTEC Integrated GmbH | Augsburger Straße 2b | 82110 Germering
+49 89 894363-0
info@fortec-integrated.de | www.fortec-integrated.de

FORTEC
POWER

FORTEC Power GmbH | Lise-Meitner-Straße 3 | 64560 Riedstadt
+49 6158 8285-0
weborder@fortec-power.de | www.fortec-power.de

FORTEC
UNITED KINGDOM

FORTEC Technology UK Ltd. | Osprey House | 1 Osprey Court
Hinchingbrooke Business Park | Huntingdon | Cambridgeshire | PE29 6FN
+44 1480 411600 | info@fortec.uk | www.fortec.uk

FORTEC
UNITED STATES

FORTEC United States, Corp. | 87 Raynor Avenue Unit 1 | Ronkonkoma
NY | 11779 | +1 631 5804360
info@fortec.us | www.fortec.us

FORTEC
CZECH REPUBLIC

FORTEC Czech Republic s.r.o. | Přátelství 275 | 330 02 Dýšina
+49 89 894363-0
info@fortec.cz | www.fortec.cz

FORTEC
SWITZERLAND

FORTEC Switzerland AG | Bahnhofstraße 3 | 5436 Würenlos
+41 44 7446111
info@fortec.ch | www.fortec.ch

FORTEC
EGYPT

FORTEC Electronic Design and Solution Egypt SMLC | Linx Business Park
Unit B318 | Smart Village | Giza Governorate
+20 120 1146222 | info@fortec.eg | www.fortec.eg

Nottrot B.V. | A FORTEC GROUP Member
Everdenberg 79
4902 TT Osterhout | North Brabant
+31 162 515458
info@nottrot.nl | www.nottrot.com