

# MAGIC AE4 DAB/DAB+

## Audio Encoder

### Quick Guide

Version: 1.210 (31 October 2019)

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- DAB/DAB+ Audio Encoder
  - DSP-based DAB/DAB+ Audio Encoder
  - Up to four DAB/DAB+ Audio Encoders
  - Full 19" x 1U housing with integrated AC power supply
  - 19" mounting brackets
  - Without fan, noiseless operation

**Front View**



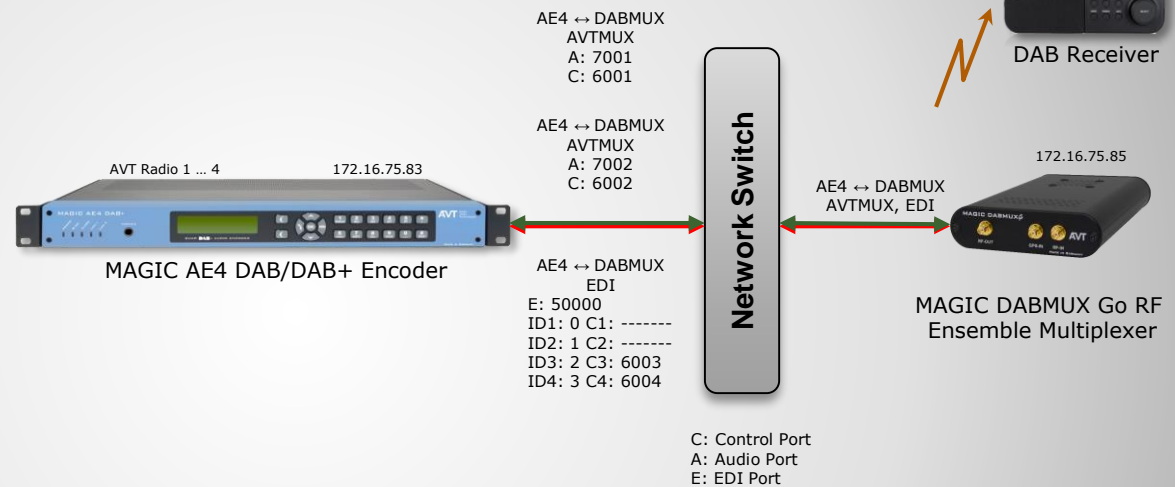
- Integrated wide range power supply  
90V – 250VAC/ 30W
  - 2 x LAN interfaces
    - Coded Audio
    - Control interface (Web browser)
    - PAD interface: Dynamic Label and Slide Show via FTP
    - NTP
  - Support PTy and Traffic Announcement via UECP
- TTL/Relay (programmable GPIO interface)
    - 8 x TTL Inputs or Outputs
    - 8 x Relay outputs
  - Analogue stereo Audio input/output
    - IN AUDIO 1 and 2
    - OUT AUDIO 1 and 2
  - 4 x Digital AES/EBU Audio input/output
    - DIGITAL AES 1-2 and DIGITAL AES 3-4

## Rear View

- Fully compatible to
  - ETSI TS 102 563 (DAB+)
  - ETSI EN 304 001 (DAB)
- DAB/DAB+ Audio Encoder
  - Up to 4 x DAB/DAB+ Audio Encoders
- DAB/DAB+ Monitoring Audio Decoder
  - Monitoring Decoder for one of the four Encoder signals
- Audio interfaces
  - 1 x Analogue Stereo Audio input
  - 1 x Analogue Stereo Audio output
  - 4 x AES/EBU Audio input
  - 4 x AES/EBU Audio output
  - 1 x AES67 8ch input (optional)
  - 1 x AES67 8ch output (optional)
  - Monitoring Stereo Headphone interface
- Special functions
  - Integrated Audio router
  - Power consumption typically 17 W
  - Synchronisation via NTP
- Data services
  - Dynamic Label/DL+ (UECP/FTP)
  - MOT Slide Show/Categorised Slide Show (FTP)
- Service Information
  - TA triggering (UECP, TTL input)
  - PTy (UECP)
- 2 x LAN interfaces
  - IPv4
- Output protocols
  - AVTMUX with Secure Streaming
  - EDI (optional) with Secure Streaming
  - MUXENC (optional) with Secure Streaming
- Alarm signalling & monitoring
  - SNMP v1c, v2c
- Configuration & Control
  - Configuration & Control via HTML5 Web browser

# Functions

- Configuration example:
  - IP leased line connection using AVTMUX protocol with Secure Streaming for program 1 and 2
  - IP leased line connection using EDI for program 3 and 4
- Analogue and digital AES/EBU Audio interfaces for uncompressed Audio
- Dynamic Label and Slide Show via FTP Transfer to the Encoder
- TA activation through GPI contact (TTL input) of the Encoders.
- Remote configuration of the Encoder data rate and data service from MAGIC DABMUX Go RF.



## Interconnection Encoder/Multiplexer

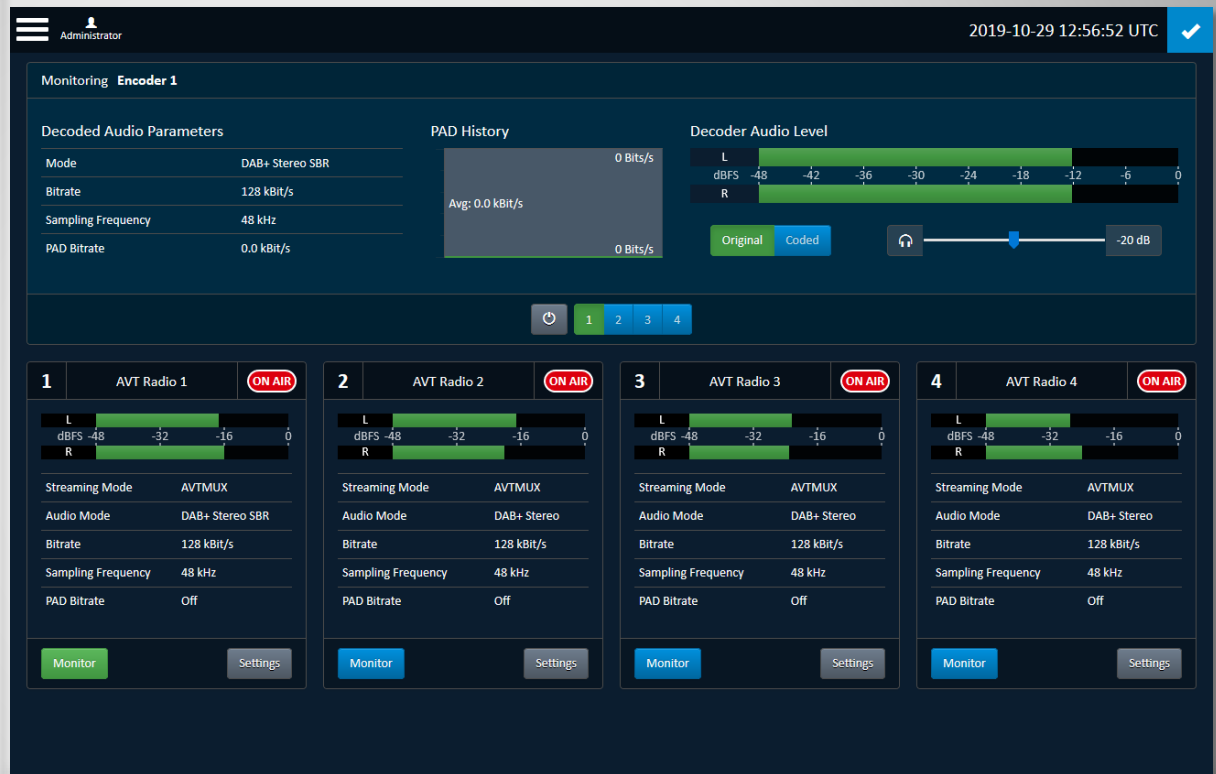
# MAGIC AE4 DAB/DAB+

## Configuration

- Web browser
  - The white hook in the top right corner indicates PC is connected to the unit. The Icon's background colour shows the system status:
    - Green: No alarm
    - Blue: There was an alarm
    - Red: There is an alarm

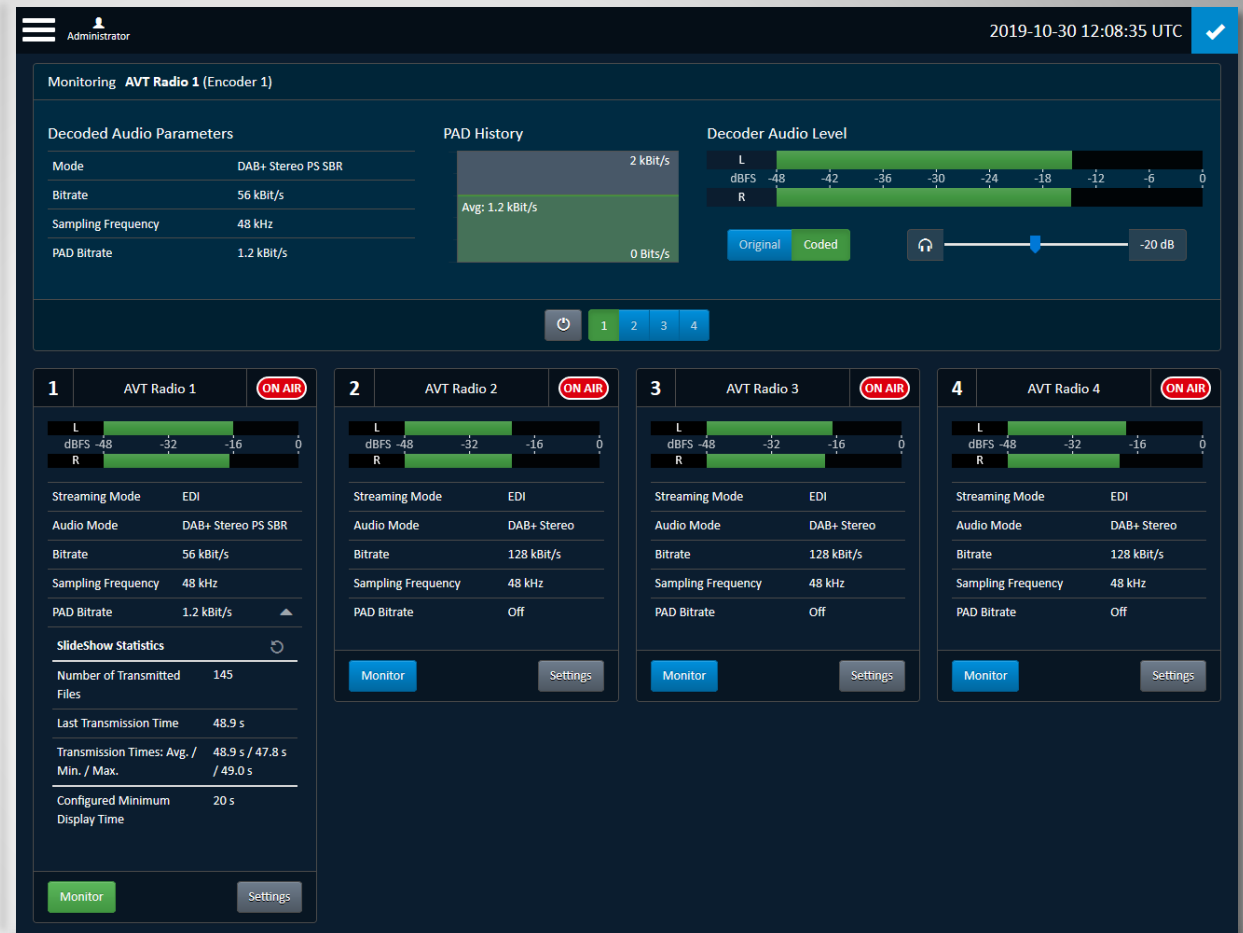
- **Monitoring Decoder**

- Displays the Audio and PAD parameters of the selected Encoder
- Displays PAD History and Audio Level
- Selection (green colour) of coded or original Audio
- Selection of the Audio level of the Headphone
- Selection of the Encoder via buttons "1 to 4" or direct in the Encoder field via "Monitor"



## Main Panel

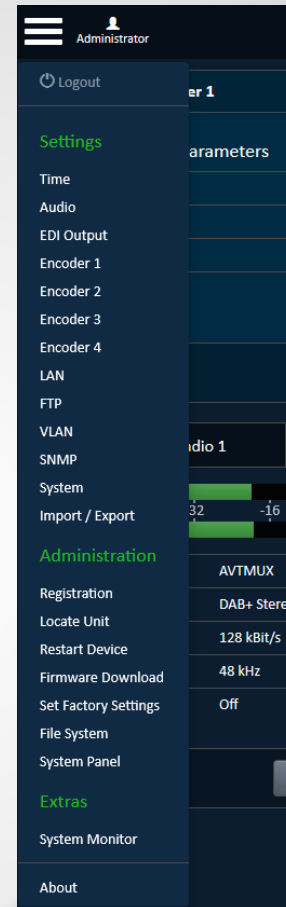
- Encoder details
  - Mode
  - Bitrate: Total data rate (Audio + PAD)
  - Sampling frequency
  - PAD Bitrate
  - Expand the PAD info to show PAD details
  - Audio level L and R
- Click the SETTINGS button to jump to the respective configuration page.



## Main Panel



- Settings
  - General settings:
    - Time for synchronisation
    - LAN parameters
    - Audio interfaces
    - PAD (FTP)
  - Individual settings of the Encoders
    - Encoder 1 to Encoder 4
  - Interface settings
    - EDI Output
    - VLAN
    - SNMP
- Administration
  - Product related details
  - Reset
  - Firmware Download
  - Factory settings
- Extras
  - System Monitor
- About
  - Software Version



## Menu Structure

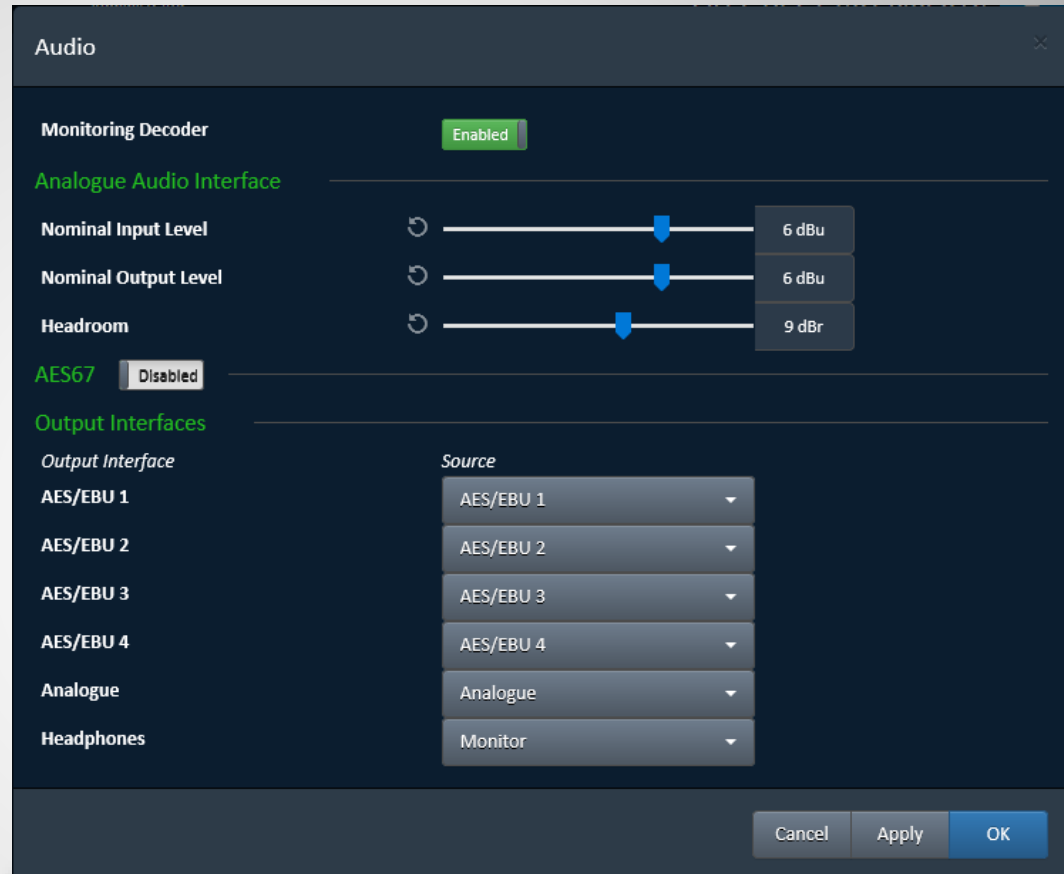
- Time Settings

- If NTP is enabled two NTP server can be configured.
- Entering of IP addresses and ports
- Configuration of NTP as clock source
- Selection of local time in UTC Offset box

The screenshot shows a 'Time' configuration window with a dark blue background. At the top, the title 'Time' is displayed. Below it, the 'Clock Source' is set to 'NTP' via a dropdown menu. A green 'NTP' label is followed by a green 'On' button. Under the 'NTP' section, there are two rows for NTP servers. 'NTP Server 1: Network / IP / Port' has a dropdown set to 'LAN 1: 172.20.67.100', an IP address field with '172.16.30.1', and a port field with '123'. 'NTP Server 2: Network / IP / Port' has a dropdown set to 'LAN 1: 172.20.67.100', an IP address field with '0.0.0.0', and a port field with '123'. Below this, the 'Local Time' section is visible. 'Timezone' is set to 'GMT UTC Universal Coordinated' via a dropdown. 'Daylight Saving' is set to 'Disabled' via a button. At the bottom right, there are three buttons: 'Cancel', 'Apply', and 'OK'.

# Time

- Audio Level Settings
  - Nominal Input and Output Levels can be set.
  - Headroom level can be set
- Audio Monitoring Settings
  - Selection of the default Monitoring channel. It is the channel after booting
- Audio Output Interfaces Settings
  - An internal Audio matrix allows the configuration of the Audio outputs
  - The source for the outputs can be each input (analogue or digital AES/EBU 1 to 4) and the monitoring decoder output
  - Each output can be configured individually



# Audio

- Enabling AES67 on the AUDIO page will immediately reconfigure the device.

- Coded audio streams are briefly interrupted.
- Audio output interfaces are reconfigured:
  - AES/EBU 1, Analogue and Headphones are set to Monitor.
  - AES/EBU 2-4 are disabled.

The screenshot shows the 'Headroom' configuration page for AES67. At the top, a 'Headroom' slider is set to 9 dBr. Below it, the 'AES67' toggle switch is highlighted with a red box and is in the 'Enabled' position. The 'LAN Interface' is set to 'LAN 1: 172.20.67.100'. The 'PTP Domain' is set to 0. The 'QoS PTP (DSCP)' is set to 46. The 'QoS RTP (DSCP)' is set to 34. The 'Select Input Stream' is set to 'Mixer Studio A'. Below this, the 'Stream Information' section shows 'Source IP, Target IP Address / Port' as '172.20.30.15 → 239.0.30.15:5300' and 'Audio / Channels' as 'PCM 24, 48 kHz, 8 Channels'. The 'AES67 Output (Monitor)' section is expanded, showing 'SAP Stream Name' as 'MAGIC AE4 AVT Radio', 'IP Address Mode' as 'Auto', 'IP Address (Auto)' as '239. 0 .67.100', 'Port' as '5300', 'Audio Mode' as 'PCM 24', and 'Sampling Rate' as '48 kHz'. The 'Output Interfaces' section is partially visible at the bottom.

## Audio – AES67 (1)

- The device can receive one AES67 stream with up to 8 audio channels.
  - LAN INTERFACE: Select the Network for AES67 RX and TX.
  - PTP Domain: Chose a clock synchronisation domain.
  - QoS PTP (DSCP): DSCP classification of the clock synchronizing protocol.
  - QoS RTP (DSCP): DSCP classification of the audio streams.
  - SELECT INPUT STREAM: The *MAGIC AE4* will discover AES67 streams in the network automatically. Chose a stream from the list.
  - STREAM INFORMATION: Details on the chosen AES67 RX stream:
    - Source IP address
    - Target IP address
    - Target Port
    - Audio bit depth
    - Audio sampling rate
    - Number of channels

Headroom 9 dBr

**AES67** Enabled

**LAN Interface** LAN 1: 172.20.67.100

**PTP Domain** 0

**QoS PTP (DSCP)** 46

**QoS RTP (DSCP)** 34

**Select Input Stream** Mixer Studio A

*Stream Information:*

Source IP, Target IP Address / Port	172.20.30.15 → 239.0.30.15:5300
Audio / Channels	PCM 24, 48 kHz, 8 Channels

**AES67 Output (Monitor)**

**SAP Stream Name** MAGIC AE4 AVT Radio

**IP Address Mode** Auto

**IP Address (Auto)** 239. 0 .67.100

**Port** 5300

**Audio Mode** PCM 24

**Sampling Rate** 48 kHz

**Output Interfaces**

## Audio – AES67 (2)

- The device will output one AES67 stream with 8 channels.
  - **SAP STREAM NAME:** Identifier of the AES67 stream in the network.
  - **IP ADDRESS MODE**
    - **MANUAL:** Enter any target multicast IP address for the AES67 stream.
    - **AUTO:** The target multicast IP address of the AES67 stream is derived from the **MAGIC AE4's** IP address. Only the multicast subnet can be changed.
  - **PORT:** Target port of the AES67 stream.
  - **AUDIO MODE:** Algorithm for audio coding:
    - L16: Linear PCM 16 bit
    - L24: Linear PCM 24 bit
  - **SAMPLING RATE:** Sampling rate of the AES67 stream:
    - 32 kHz
    - 48 kHz

**Headroom** 9 dBr

**AES67** Enabled

**LAN Interface** LAN 1: 172.20.67.100

**PTP Domain** 0

**QoS PTP (DSCP)** 46

**QoS RTP (DSCP)** 34

**Select Input Stream** Mixer Studio A

**Stream Information:**

Source IP, Target IP Address / Port	172.20.30.15 → 239.0.30.15:5300
Audio / Channels	PCM 24, 48 kHz, 8 Channels

**AES67 Output (Monitor)**

**SAP Stream Name** MAGIC AE4 AVT Radio

**IP Address Mode** Auto

**IP Address (Auto)** 239. 0 .67.100

**Port** 5300

**Audio Mode** PCM 24

**Sampling Rate** 48 kHz

**Output Interfaces**

## Audio – AES67 (3)

- General information on Audio over IP / AES67 as well as tips for interworking with DANTE, RAVENNA and Livewire+ are available in the DOWNLOAD section of our website under QUICK GUIDES.

The screenshot shows the 'Headroom' configuration window for AES67. At the top, there is a 'Headroom' slider set to 9 dBr. Below this, the 'AES67' section is marked as 'Enabled'. The configuration is divided into two main parts: 'AES67' settings and 'AES67 Output (Monitor)' settings.

**AES67 Settings:**

- LAN Interface:** A dropdown menu showing 'LAN 1: 172.20.67.100'.
- PTP Domain:** A numeric input field set to '0'.
- QoS PTP (DSCP):** A dropdown menu set to '46'.
- QoS RTP (DSCP):** A dropdown menu set to '34'.
- Select Input Stream:** A dropdown menu set to 'Mixer Studio A'.
- Stream Information:** A table showing 'Source IP, Target IP Address / Port' as '172.20.30.15 → 239.0.30.15:5300' and 'Audio / Channels' as 'PCM 24, 48 kHz, 8 Channels'.

**AES67 Output (Monitor) Settings:**

- SAP Stream Name:** A text field containing 'MAGIC AE4 AVT Radio'.
- IP Address Mode:** A dropdown menu set to 'Auto'.
- IP Address (Auto):** A field showing '239.' followed by a numeric input '0' and '.67.100'.
- Port:** A numeric input field set to '5300'.
- Audio Mode:** A dropdown menu set to 'PCM 24'.
- Sampling Rate:** A dropdown menu set to '48 kHz'.

At the bottom, there is a section for 'Output Interfaces' which is currently empty.

## Audio – AES67 (4)

- EDI Output
  - Enter EDI parameters
  - Define up to four destinations.
  - Enter IP address and Port of each destination (Multicast or Unicast IP address)
  - Secure streaming can be enabled for each destination

The screenshot shows the 'EDI Output' configuration window. It includes the following settings:

- Resend Requests Port:** LAN 1: 172.20.67.100, 0
- DCP FEC Level:** 3
- DCP Spreading Ratio:** 100%
- DCP Output MTU:** 1472 bytes
- QoS EDI (DSCP):** 46
- Output Destination 1:** On
  - Network / IP / Port:** LAN 1: 172.20.67.100, 172.20.200.4, 50101
  - Secure Streaming:** On
  - Delay:** 200 ms
- Output Destination 2:** On
  - Network / IP / Port:** LAN 1: 172.20.67.100, 172.20.200.4, 50101
  - Secure Streaming:** On
  - Delay:** 200 ms
- Output Destination 3:** Off
- Output Destination 4:** Off

Buttons at the bottom: Cancel, Apply, OK

## EDI Output



- Configuration of the Encoder can be entered either via MENU – ENCODER X or via the SETTINGS button of each encoder on the main panel.
- Audio Settings
  - Selection of Streaming mode, Input interface, QoS and Audio Level Amplification
- IP Settings
  - Entering of the Multiplexer Control Port
- Coding Settings
  - Selection of DAB or DAB+, Data Rate, Coding Mode and Sampling Rate

The screenshot shows the 'Encoder 1' configuration window with the 'Audio' tab selected. The settings are as follows:

Setting	Value
Encoder Name	AVT Radio 1
Input Interface	AES/EBU 1
Streaming Mode	AVTMUX
Audio Level Amplification	0 dB
Audio Level Alarm	On
Threshold	-30 dBFS
Interval	10 s
Multiplexer Control Port	LAN 1: 172.20.67.100, 0
Codec	DAB+
Subchannel Data Rate	128 kBit/s
Audio Mode	Stereo SBR
Sampling Rate	48 kHz (24 kHz with SBR)
Bandwidth Extension	Off

## Encoder - Audio

- On the OUTPUT page enter the parameters for the respective STREAMING MODE selected on the AUDIO page.

The screenshot shows the 'Encoder 1' configuration window with the 'Output' tab selected. The window has four tabs: 'Audio', 'Output', 'PAD', and 'UECP'. Under the 'AVTMUX Output' section, there are two output configurations. 'Output 1: Network / IP / Port' has a dropdown menu set to 'LAN 1: 172.20.67.100', an IP address field set to '172.20.200.4', and a port field set to '50100'. Below this, the 'Secure Streaming' toggle is set to 'Off'. A 'Delay' field is set to '200' ms. 'Output 2: Network / IP / Port' has a dropdown menu set to 'LAN 1: 172.20.67.100', an empty IP address field, and an empty port field. Below this, the 'Secure Streaming' toggle is also set to 'Off'. A 'Delay' field is set to '200' ms. Under the 'EDI Output' section, there is a text box that says 'To configure EDI output targets, please use the [EDI Output](#) settings page.' At the bottom right, there are three buttons: 'Cancel', 'Apply', and 'OK'.

Section	Parameter	Value
AVTMUX Output	Output 1: Network / IP / Port	LAN 1: 172.20.67.100, 172.20.200.4, 50100
	Secure Streaming	Off
	Delay	200 ms
	Output 2: Network / IP / Port	LAN 1: 172.20.67.100, , 0
EDI Output	Secure Streaming	Off
	Delay	200 ms
	To configure EDI output targets, please use the <a href="#">EDI Output</a> settings page.	
	Buttons: Cancel, Apply, OK	

## Encoder - Output

- General PAD Settings

- Selection of Inserter Mode, Local generation or via AVTMUX or via AVTMUX redundancy
- Entering of Alarm Timeout and maximum Data rate

- Dynamic Label Settings

- Entering of the display time in seconds
- In Output Format selection of the charset (character set). The characters are displayed on the DAB+ receiver
- Via button "Open File Manager" the files can be defined

- Slide Show Settings

- Entering of the display time in seconds
- Via button "Open File Manager" the files can be defined

- Direct FTP

- Direct FTP can be configured in a separate page

Encoder 1

Audio Output **PAD** UECP

Inserter Mode Local generation

Alarm Timeout 10 s

Datarate Auto (10%)

Constant PAD Rate Off

**Dynamic Labels**

Display Time 20 s

Output Format Complete EBU Latin based

Manage Static Dynamic Label Content Open File Manager

**SlideShow**

Minimum Display Time 20 s

Manage Static SlideShow Content Open File Manager

Cancel Apply OK

## Encoder - PAD

- Select the UECP page to configure Traffic Announcement / Traffic Programme.
- TA/TP Parameters
  - Enter the TA Active and TA Inactive Delays in ms. Is not required for the function. This can be used to compensate for the offset between audio and UECP transmission.
  - A UECP destination must be configured for the function.
  - Negative edge activates TA
  - Fixed assignment of the TTL inputs to the TA signalling of the audio encoders
- UECP Output Parameters
  - Enter the IP address of the Multiplexer for OUTPUT DESTINATION 1
- Assignment of TA signalling
  - Encoder 1: TTL 1
  - Encoder 2: TTL 2
  - Encoder 3: TTL 3
  - Encoder 4: TTL 4

Encoder 1

Audio Output PAD **UECP**

**UECP Data**

Encoder Address 0

Site Address 0

Program Service Number (PSN) 0

**TA/TP Parameters**

TA Active Delay 0 ms

TA Inactive Delay 0 ms

TA/TP TTL Input *TTL 1 negative edge: TA active  
TTL 1 positive edge: TA inactive*

Static Programme Type (PTy) ☐ Off

**UECP Output Parameters**

Destination 1: Network / IP / Port LAN 1: 172.20.67.100 0

Destination 2: Network / IP / Port LAN 1: 172.20.67.100 0

Destination 3: Network / IP / Port LAN 1: 172.20.67.100 0

Destination 4: Network / IP / Port LAN 1: 172.20.67.100 0

**UECP Input Parameters**

Source: Network / Port / [Group Address] LAN 1: 172.20.67.100 0

Source IP Address

Data Filter

Message Element Code (MEC) Forwarding

TA/TP

All MEC without TA/TP

PTy

## Encoder - UECP

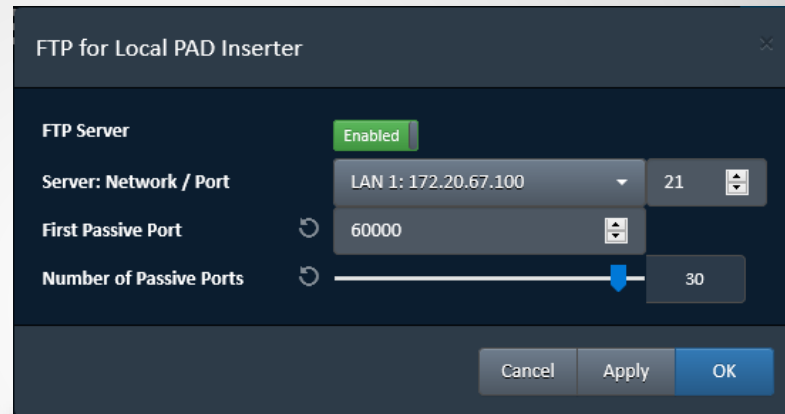
- LAN1 & LAN 2 Settings
  - Enter up to 4 different IP addresses for each LAN interface

The screenshot shows a 'LAN' configuration window with a dark blue background. At the top, there are two tabs: 'LAN 1' and 'LAN 2'. The 'LAN 2' tab is currently selected. Below the tabs, there are four sections, each representing a different network configuration. The first section is titled 'Main Network' in green. It contains four input fields: 'Network Name' (empty), 'IP Address' (172.20.67.100), 'Subnet Mask' (255.255.0.0), and 'Default Gateway' (172.20.1.1). The second section is titled 'Network 2' in green and contains four empty input fields: 'Network Name', 'IP Address', 'Subnet Mask', and 'Gateway'. The third section is titled 'Network 3' in green and contains four empty input fields: 'Network Name', 'IP Address', 'Subnet Mask', and 'Gateway'. The fourth section is titled 'Network 4' in green and contains four empty input fields: 'Network Name', 'IP Address', 'Subnet Mask', and 'Gateway'. At the bottom right of the window, there are three buttons: 'Cancel', 'Apply', and 'OK'.

LAN

- FTP Settings

- Enable FTP
- Entering FTP Server IP address and Port address
- Entering First Passive Port and Number of Passive Ports



The screenshot shows a software window titled "FTP for Local PAD Inserter". It contains the following settings:

- FTP Server:** A green toggle switch labeled "Enabled".
- Server: Network / Port:** A dropdown menu showing "LAN 1: 172.20.67.100" and a port field set to "21".
- First Passive Port:** A field with a refresh icon and a value of "60000".
- Number of Passive Ports:** A slider with a refresh icon, a blue arrow pointing to the right, and a value of "30".

At the bottom right of the window are three buttons: "Cancel", "Apply", and "OK".

FTP

- VLAN Settings
  - Enter VLAN-Mode, Priority and VLAN ID for each service.

VLAN

General EDI Encoder 1 Encoder 2 Encoder 3 Encoder 4

VLAN Enabled

Service	TPid	Priority	VID (12 Bits)
NTP Primary	802.1 QTag	0 (Default, Best Effort)	1
NTP Secondary	none		
SNMP NMS 1	none		
SNMP NMS 2	none		
SNMP NMS 3	none		
SNMP NMS 4	none		
AES67	802.1 QTag	6 (Voice)	2
FTP Server	none		
Web Control 1	none		

Cancel Apply OK

VLAN

- SNMP
  - GENERAL: Setup the SNMP agent.
  - MANAGERS: Enter up to 4 Network Management Systems.
  - TRAPS: Enable Traps for each event individually and group events into categories.
- Download the MIB files via the GET SNMP MIB FILES button in the bottom left corner.

SNMP

General Managers Traps

SNMP Enabled

SNMP Version v2c

Read Community public

Trap Community public

Write Community private

SNMP Port 161

System Description DAB Encoder

System Contact Admin

System Location 5.9.14

Trap Settings

Send All Traps At Startup On

Send Traps Immediately After Enabling Off

Category A Alias Encoder 1

Category B Alias

Category C Alias

Category D Alias

Category E Alias

Category F Alias

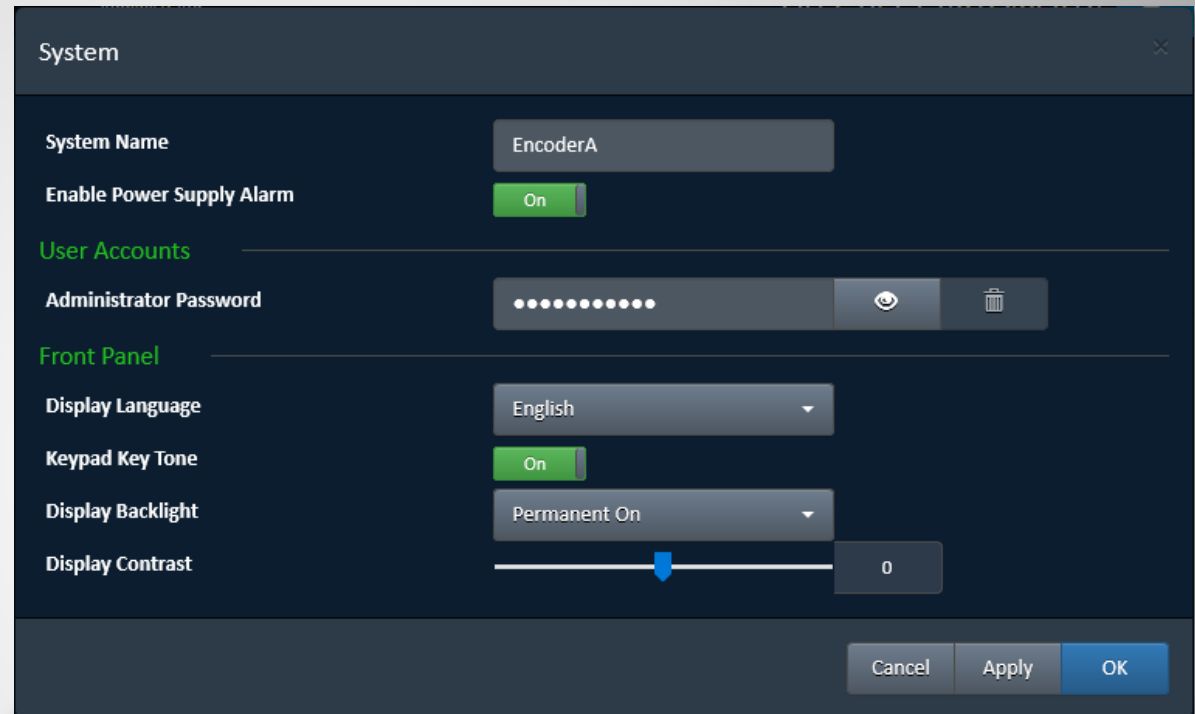
Get SNMP MIB files Cancel Apply OK

# SNMP



- System Settings

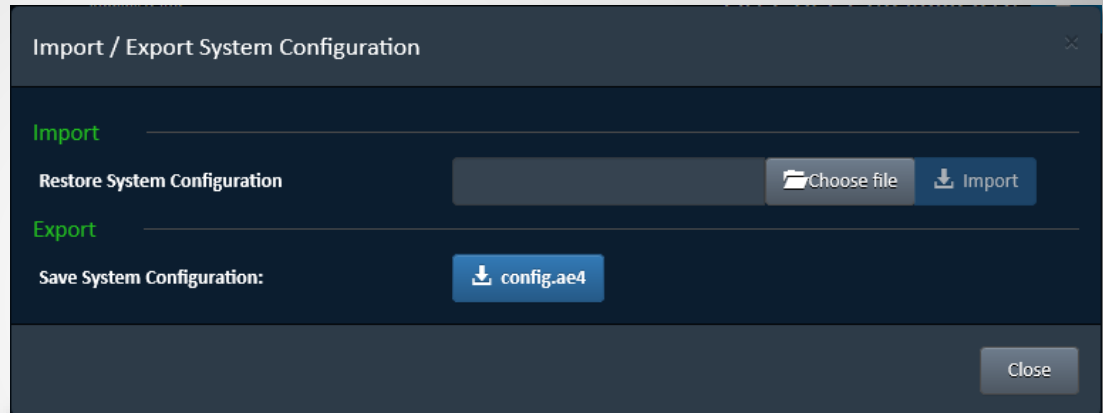
- Selection of front display language
- Activation of Key Tone for front keypad
- Configuration of backlight and Display contrast
- System Name can be entered
- Administrator password can be entered



The screenshot shows a 'System' settings window with a dark blue background. It contains several sections: 'System Name' with a text input field containing 'EncoderA'; 'Enable Power Supply Alarm' with a green toggle switch set to 'On'; 'User Accounts' with an 'Administrator Password' field represented by a series of dots and icons for visibility and deletion; 'Front Panel' with 'Display Language' set to 'English' via a dropdown; 'Keypad Key Tone' with a green toggle switch set to 'On'; 'Display Backlight' set to 'Permanent On' via a dropdown; and 'Display Contrast' with a slider bar and a numeric value of '0'. At the bottom right are 'Cancel', 'Apply', and 'OK' buttons.

# System

- **IMPORT:** Restore system configuration from an \*.ae4 file from your PC.
- **EXPORT:** Backup system configuration to a \*.ae4 file to your PC.



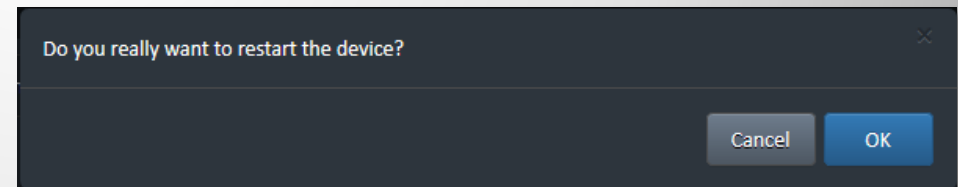
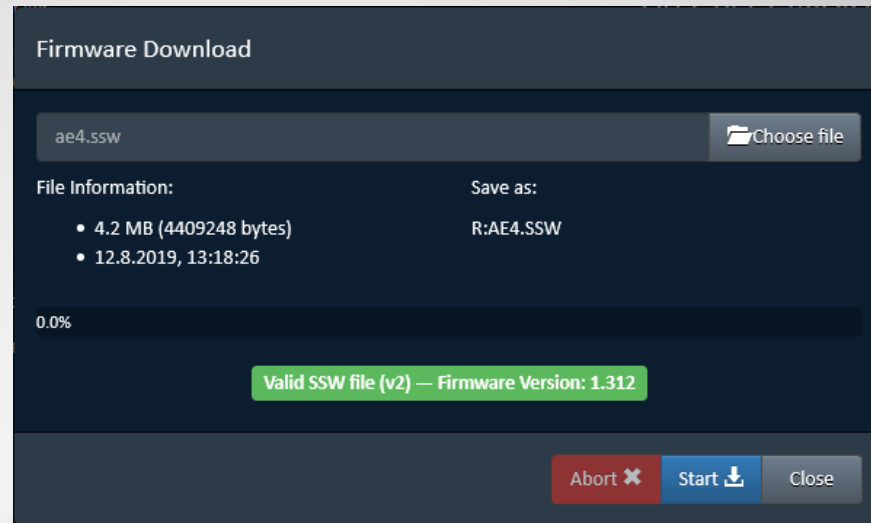
## Import / Export

- Firmware Download

- Via “choose file” the firmware download file can be selected
- After selecting the Start button the download will be started and the download status will be indicated in percentage.
- When the download has finished a reset of the unit will be executed after confirmation.

- Restart Device

- After selecting the “OK” button a reset will be executed
- The configuration will not be changed



# Firmware Download

- The Registration shows:
  - Device Information
  - Available and installed Software Options
- Enter password to licence software options.

The image shows a 'Registration' window with a dark blue background. It is divided into three main sections: 'Device Information', 'Software Options', and 'Register Features'. The 'Device Information' section lists various hardware and firmware details. The 'Software Options' section shows a list of features with checkboxes, all of which are checked. The 'Register Features' section includes a password input field and a 'Submit' button. A 'Close' button is located at the bottom right of the window.

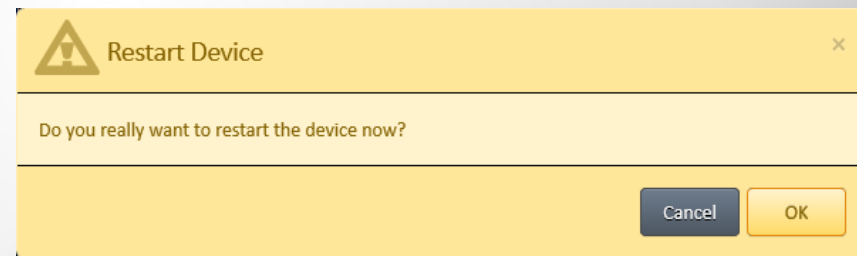
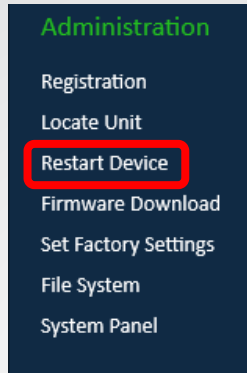
Device Information	
Hardware	MAGIC AE4 DAB+ Encoder
Firmware Version	2.002
Firmware Build	2318
Subject Number	450164
Factory Number	13/45/1028
Year	2013
Hardware Version	2.00
MAC Address 1	00-06-9B-02-09-B5
MAC Address 2	00-06-9B-02-09-B6

Software Options	
EDI	<input checked="" type="checkbox"/>
MUXENC	<input checked="" type="checkbox"/>
Encoder Channels	4
AES67	<input checked="" type="checkbox"/>

Register Features	
Enter Password	<input type="password"/> Password <input type="button" value="Submit"/>

## Registration

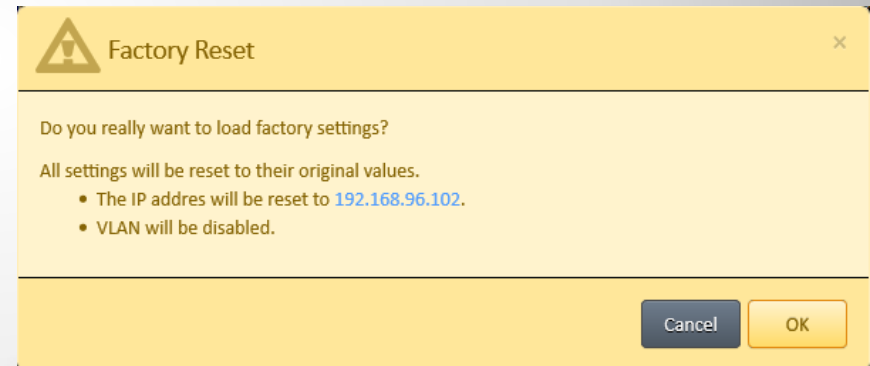
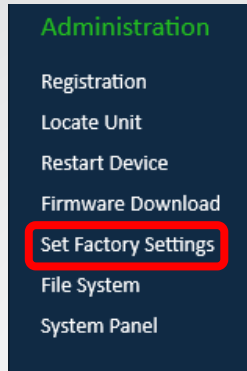
- You may restart the *MAGIC AE4*.
- Confirmation needed to restart the device.



## Restart Device

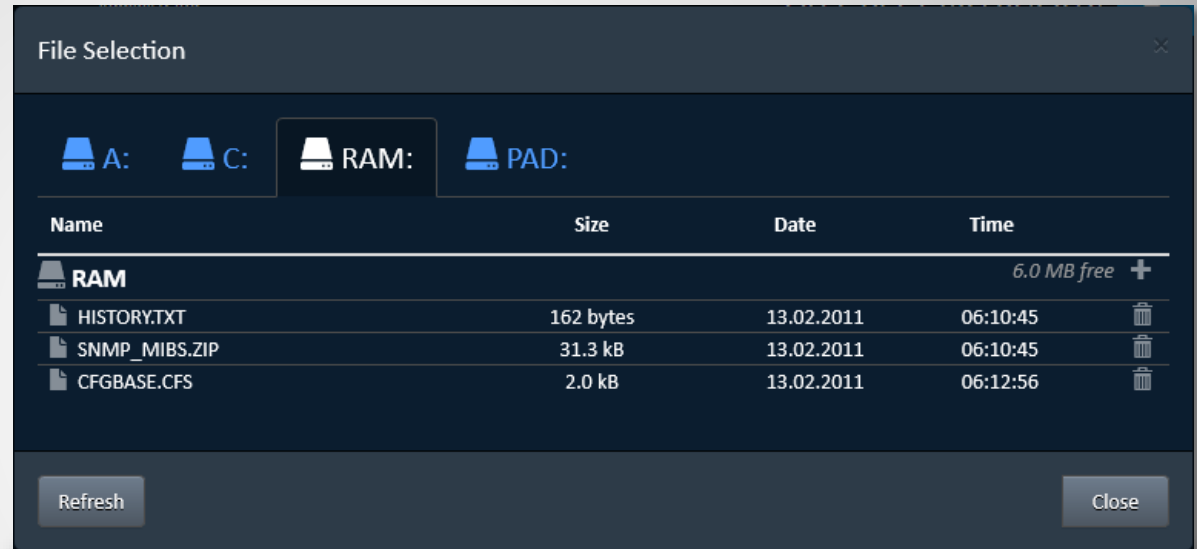
- **Factory Reset**

- Only first IP is configured for LAN1 and LAN2
  - IP1 LAN1: 192.168.96.102
  - IP1 LAN2: 192.168.96.103
  - Gateway: 255.255.255.0
  - Subnet Mask: 192.168.96.1
- VLAN is disabled
- Timer
  - NTP is active
  - IP addresses not entered
- EDI is switched off
- FTP is switched off
- Audio
  - 0 dB for input and output level
  - Audio inputs are switched to Audio outputs (analogue and digital AES/EBU)
  - Level alarms are active
  - Monitoring interface is switched to headphone
- Encoder 1 to 4
  - Data Rate: 128kbit/s
  - Sampling Rate: 48kHz
  - Mode: Stereo
  - Audio Enc.1: AES1
- Monitoring Decoder shows status of Encoder 1



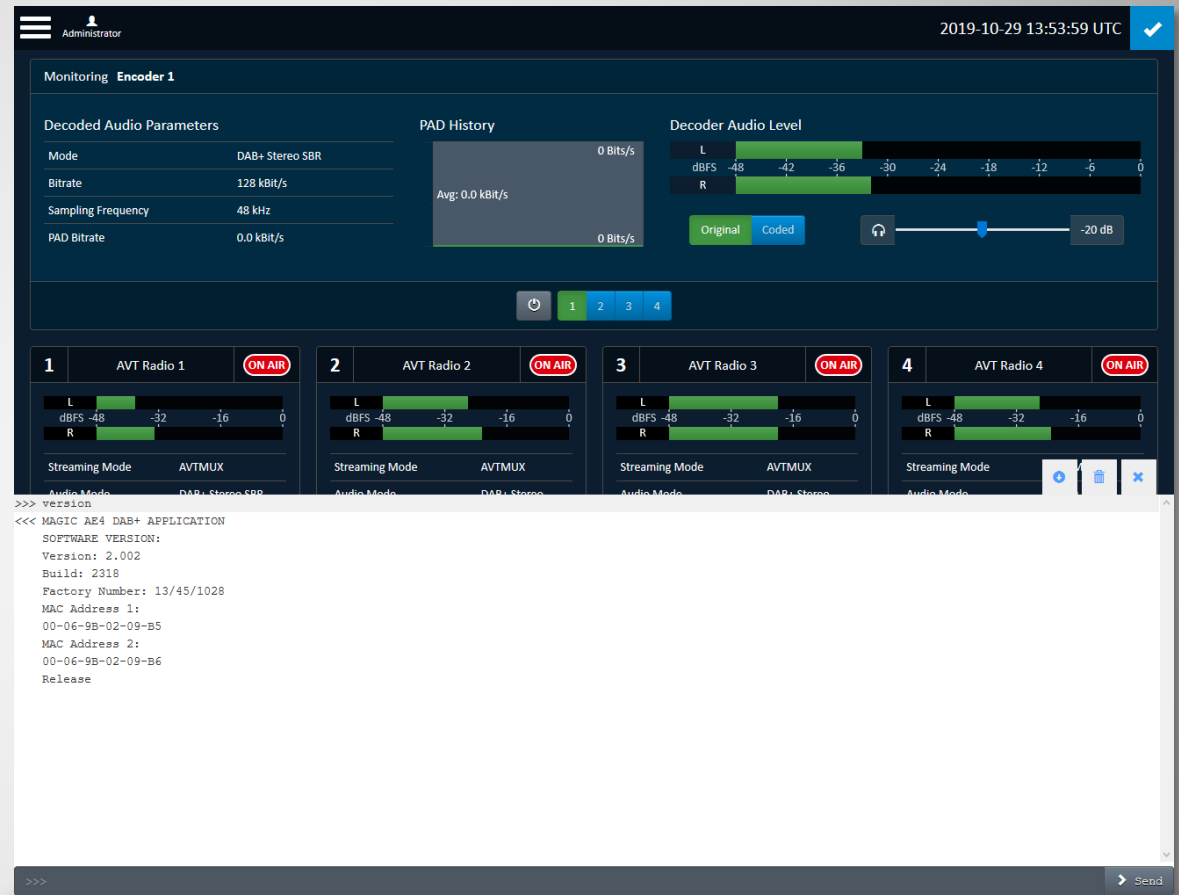
# Factory Reset

- Explore the file system of the device.
- Click the waste bin icon to delete a file. Be cautious, this may render the system unusable.
- Click the “+” icon to the right to upload a file to the device.



## File System

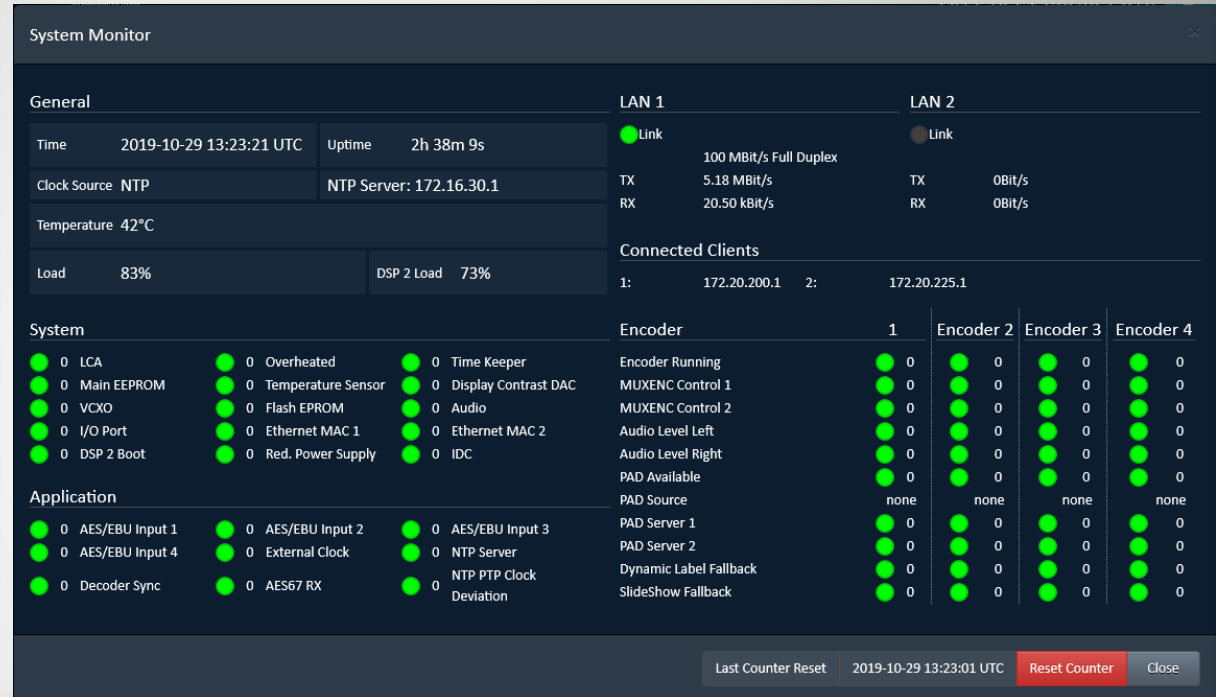
- The System Panel is shown at the bottom of the web page.
- It accepts debug commands such as:
  - Version
  - Help
  - Ping
- Type a command for help.



## System Panel



- System Alarm
  - Hardware related alarms, such as Main Eprom, Flash Eprom etc.
- Channel1 Alarm to Channel 4 Alarm
  - Encoder related alarms such as Audio level alarm, PAD alarm etc.
- Application Alarm
  - AES/EBU input alarms
  - NTP Server alarm
  - Monitoring Dec. Sync alarm
- System State
  - Indication of Temperature, Time, DSP Load and Uptime
- Network connections
  - Details of LAN1 and LAN2
  - NTP Server IP address
  - IP addresses of Connected Clients



# System Monitor

- Indication of the Firmware Version
- AVT`s Post address
- Internet: AVT`s home page
- Support addresses
  - Phone number
  - Email address



# About

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**Support**