# MAYAH WebRemote 4.1

MAYAH Communications Manual





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## **1** Introduction

This operating manuals describes the MAYAH Web Remote and its operation. The MAYAH WebRemote is an online control interface for operation of MAYAH audio codecs. It is accessed through a web browser.

The Web Remote can be used with the following MAYAH Audio Codecs:

- · CENTAURI IV 5000 Audio Codec
- · CENTAURI IV 3001 Audio Codec
- · C10 Audio Codec
- · C12 Audio Codec

This manual is separated into 5 chapters. These are:

#### 1. Introduction

A basic overview of the WebRemote and the manual itself. This includes system requirements for the WebRemote, as well as explanations of symbols and terminology used in this manual. This is the chapter you are currently reading.

#### 2. Basic Operation and Preparation 8

Information about how to access the WebRemote, its setup and additional information about its operation.

#### 3. Elements of the WebRemote 15

Explains the graphic user interface of the WebRemote, how to navigate it and the information displayed.

#### 4. Web Remote Operation 24

Gives detailed descriptions of all the functions of the WebRemote, how to use them and what to be aware of when using them.

#### 5. Troubleshooting

Details some general troubleshooting tips and tells you how to contact MAYAH

### 1.1 About MAYAH Web Remote

The MAYAH Web Remote allows you to control your MAYAH Audio Codecs over a web browser. Depending on the model you are using it may be the only way to operate the unit or an alternative to operation via the front panel. The MAYAH WebRemote allows the following:

- · easy configuration of all necessary settings and properties of the MAYAH Codec
- fast and reliable establishment and termination of all kinds of connections over IP, ISDN and other interfaces

- · monitoring of multiple subcodecs at once
- · access to a phone book for easy connection to other audio codecs
- · monitoring of the basic device conditions and connection states

## 1.2 Symbols and Formatting used

This manual uses the following symbols and formatting to make it as easy as possible to find exactly the information you need.

Symbol	Name	Explanation				
i	Information	Gives closer information about the WebRemote or any of its functions. This information is often necessary to understand following instructions.				
	Gives other information that you should be aware of and that might be especially relevant for some users, but is not required to understand following instructions.					
	Expert	Alerts the reader of operations that should only be performed by an expert user or under instruction from a MAYAH employee.				
	Attention!	Combined with a header. Stands for instructions that you <b>must</b> follow to prevent possible damage to the unit, loss of data or other dangers. The header will include a short statement about the nature of the risk. Acting against these instructions might cause malfunctions or render the unit permanently damaged. MAYAH cannot guarantee warranty when ignoring these instructions led to loss of data or damage to the unit.				
$\oslash$	Reference	Links to a related topic or instruction within this document.				
	Weblink	Links to a relevant website.				

•	Simple list	Used for lists that simply list a number of things.		
•	Simple list, subitem	Used for subitems on a larger list. Subitems always belong to the last regular list item above them.		
*	Requirement	Accompanied by the word "Requirement." This lists items, circumstances or other things that must be at hand or true before continuing with the following instruction.		
1., 2., 3., etc	Instruction Steps	Orders the sequence of steps you need to perform in an instruction.		
>	Result (intermediate)	Explains what effect a given instruction step leads to. This is meant to help you ensure that you have successfully followed		

		the instruction steps.
✓ Success		Confirms the successful completion of an instruction.
ALL CAPS Highlights a your keyboa		Highlights a keyboard input, e.g. ENTER means to press the Enter key on your keyboard.
Bold		Highlights an important part of a statement that must not to be ignored.
File(path) Highlights		Highlights a file or filepath
Front panel Highlight		Highlights a front panel input
Italics		Highlights an example
WebRemote Highlights		Highlights text found in the WebRemote

## 1.3 Terms used

Here you can find the terminology used in this manual and its meaning.

Audio codec	The hardware device used for transmission of high-quality audio		
Subcodec			
Cookies			
Unit			
Model			

## **1.4 System Requirements**

Here you find system requirements and recommendations.



MAYAH Web Remote starting from the Version 4.0 runs in any standards-based web browser on virtually any operating system and platform. For the best experience and most security we recommend the following:

- · Firefox 3.5 and higher on Windows (2000, XP, Vista, 7, 8 and 10), Linux and Mac OS X
- Chrome 5 and higher on Windows (XP, Vista, 7, 8 and 10) and Mac OS X



Download Mozilla Firefox here: <u>www.mozilla.org</u> Download Google Chrome here: <u>https://www.google.com/chrome/</u>



The Web Remote may also work in any other standards-based browser with Javascript and Cookie support, including browsers on Mobile platforms such as

Apple iPhone or Windows Mobile. MAYAH cannot guarantee the correct display and functioning of the control elements in such browsers.



Starting from Version 4.0.1.10 (MAYAH Firmware 4.1.2.0), the Web Remote will not work in Internet Explorer 6 or Internet Explorer 7. Perform an <u>upgrade</u> to a more up-to-date browser version or use an alternative browser.

#### 1.4.1 Javascript and Cookies



The browser must allow Javascript and Cookies.

#### 1.4.1.1 Enabling Cookies



The following link leads you to the online help resources of the respective browsers. MAYAH is in no way affiliated with them and cannot be held accountable for any damages or problems caused by following these instructions.



To learn how to enable Cookies consult the help documentation or read me files of your browser. Here are links to the online documentations of some of the most popular browsers:

Google Chrome: <u>https://support.google.com/chrome/?hl=en</u> Internet Explorer: <u>http://windows.microsoft.com/en-US/internet-explorer/internet-explorer-help</u> Mozilla Firefox: <u>https://support.mozilla.org</u>

#### 1.4.1.2 Enabling Javascript



The following link leads you to the online help resources of Java. MAYAH is in no way affiliated with Java or the Oracle Corporation and cannot be held accountable for any damages or problems caused by following these instructions.



To learn how to enable Javascript in your browser follow this link <a href="https://www.java.com/en/download/help/enable\_browser.xml">https://www.java.com/en/download/help/enable\_browser.xml</a>

### 1.5 IP Settings

This section explains the default IP settings and ports.

## Introduction

Default IP settings		
DHCP	off	
Address	10.0.010	
Net Mask	255.255.255.0	
Gateway	255.255.255	
DNS Server	255.255.255	

The Advanced Dual IP Audio Codecs C10, C12 and CENTAURI IV 5000 have two Ethernet cards by default with different default settings					
LAN (basic, by o	default only used for remote control)				
DHCP	off				
Address	10.0.0.10				
Netmask	255.255.255.0				
Gateway	255.255.255.255				
DNS Server	255.255.255.255				
LAN1 (additiona	l, by default only used for audio streaming)				
DHCP	off				
Address	10.0.1.10				
Netmask	255.255.255.0				
Gateway	iteway 255.255.255.255				
DNS Server 255.255.255.255					



If IP-address 255.255.255.255 is entered, it means that the service or address is not in use.



To control your MAYAH Codec in your LAN it must be located in the same subnet as your PC. This means when the digits of your binary net mask are '1' the referring digits of the IP address of your MAYAH Codec and your PC must be the same.

*Example*: Net mask: 255.255.255.0 = 11111111 11111111 11111111 00000000 PC IP address: 192.168.1.56 MAYAH Codec with IP address: 192.168.1.57 is located in the same subnet, but 192.168.100.57 is not.

Necessary IP ports for successful Audio-over-IP connections		
5004	Audio transmission, RTP	
5005	Network information, RTCP	
5060	SIP	



For additional RTP connections add +10 to the 5004 for each additional connection. Note that the maximal number of RTP connections is limited by the number of available subcodecs.



Setting the port is not necessary for SIP connections as it automatically transmits to an apppropriate subcodec.

Other IP ports used by MAYAH devices				
20 and 21	FTP Data and control			
23	Telnet remote control			
80	HTTP for web-remote			
123	NTP			
161	SNMP control			
162	SNMP traps			
5006	FEC Redundant Data, columns			
5008	FEC Redundant Data, rows			
2060	Audio level information for remote control software			
2061	UDP scan			



To find a full list of the IP ports used by MAYA audio codecs follow this link to download the <u>Communication Reference Manual</u>.

## 1.6 List of Figures

Enter topic text here.

## Introduction

## 1.7 List of Tables

Enter topic text here.

## 2 Basic Operation and Preparation

This chapter explains how to access and set up the WebRemote. It also presents other information you should be aware of before using the WebRemote.

## 2.1 Find the IP settings of the WebRemote

This sections explains how to find the IP settings of your WebRemote when the default are not correct anymore.



In case of the IP of the unit having changed without direct user input, a boot script can be used to learn the current IP address of the unit.

For more details on boot scripts see the following sections:

Preparing a Boot Script

• Using a Boot Script

Requirement:

- The MAYAH audio codec must be turned off
- 1. Open the text editor
- 2. Save the empty file as mayah-command-scripts.txt on a USB storage device > The boot script for determining the IP is ready
- 3. Connect the USB storage device with the USB port of the MAYAH audio codec
- 4. Turn the MAYAH audio codec on
  - ✓ The file mayah-command-scripts.txt.log is being created on the USB storage device, this can take an extra minute after boot
- 5. Disconnect the USB storage device
- 6. Connect the USB storage device to a device capable of displaying text files (like a computer)
- 7. Find and open the file mayah-command-scripts.txt.log on the USB storage device

✓ You can now see the current IP settings of the MAYAH audio codec

### 2.2 Access the Web Remote

This sections explains how to access the WebRemote.

The default access data are:

Username: WebAdmin

Password: WebPower

For alternative access data see <u>Access Levels</u> 14.

Requirement:

- Ensure that the MAYAH Audio Codec can be reached over IP or LAN or the internet
- 1. Open your web browser
- 2. Enter the IP address of your MAYAH audio codec in the address bar of your web browser
- 3. Press ENTER or click the corresponding symbol
  - > The browser opens the Web Remote
  - > A prompt appears, asking for Username and Password
- 4. Enter the Username and Password, see above for default access data
  - ✓ You now have access to the to WebRemote

## 2.3 Access System Files

This section explains how to access the system files of the unit.



Each MAYAH Audio Codec has an integrated FTP and web server. You can access them as soon as the device is reachable via IP and the IP address is known.



MAYAH recommends FileZilla as a capable and free FTP client. You can download it here: <u>https://filezilla-project.org/</u>



FTP access should be only be performed by an experienced user or under instruction from a MAYAH employee.

Requirement:

- Ensure that the MAYAH Audio Codec can be reached over IP or LAN or the internet
- 1. Open your FTP client
- 2. Enter the access data:
  - Server/Host: <IP address of MAYAH Codec>
  - Username: Admin
  - Password: Power
- 3. Press ENTER or click the corresponding button
  - The FTP client is connecting to the MAYAH audio codec
  - $\checkmark$  You are now connected to the FTP server of the MAYAH audio codec

#### 2.3.1 Access attached storage devices



To access a storage device inserted into MAYAH Codec just add an appropriate 'path' to the access data:

- D: (SD Card)
  - E: (PC card)

• F: (USB storage)

### 2.4 Update audio codec firmware

This section explains the different ways to perform a firmware update for the MAYAH audio codec and the WebRemote.

The current audio codec models can be updated in three different ways:

- Web Remote
- USB sticks or SD cards
  - FTP connection.



#### Attention! Possible Software Damage!

The unit could be damaged if the update process is interrupted. Do not remove a physical storage device or interrupt a FTP or web connection while an update is in progress!

#### 2.4.1 **Preparing an Update**



The firmware update is provided by MAYAH as a single file with the file name extension '.upd'. This file must be made ready on your computer before update.

Requirement:

- 1. Open your web browser
- 2. Go to the URL http://www.mayah.com/downloads/#updates
- 3. Find the MAYAH audio codec model used by you
- 4. Download the respective firmware update to a folder you can remember
  - ✓ You now have the required .upd file on your computer



If you are looking for the latest release candidate visit the MAYAH FTP server. For more information visit our support page.

#### 2.4.2 Update via Web Remote (recommended)

Requirement:

- The update file has been downloaded and is available on your computer
- 1. Open the WebRemote
- 2. Click on Special
- 3. Click on Firmware Update

## **Basic Operation and Preparation**

- 4. Click on the option browse ...
  - A file dialog opens
- 5. Navigate to the folder containing the update file
- 6. Select the file for upload
- 7. Click upload
  - > The file is uploading, this can take a few minutes
- 8. Click Reboot
- 9. Click
  - > The unit performs a soft reboot
  - ✓ The unit firmware is now updated

#### 2.4.3 Update via USB stick or SD Card



This option is available starting from firmware version 4.0.0.9



If the "device.upd" file is not write-protected it will be deleted from the storage media upon successful update



Attention! Possible Software Corruption!

The software could be corrupted. Do not disconnect the update media from the device if "Update Extracting files" appears on the LCD screen or ALARM, CONNECT and FRAMED LEDs are lit up simultaneously!



#### <u>Attention!</u> Possible Software Corruption!

If the file is write-protected it may come to an infinite update "loop". Remove the storage media from the device as soon as the LCD screen shows "Update ... %" or LEDs have started to blink.

Requirements:

- The update file has been downloaded and is available on your computer
- The MAYAH audio codec is turned off
- 1. Rename the file to device.upd
- 2. Copy the update file onto the storage media in a folder  $\Update$
- 3. Connect the storage media to the MAYAH audio codec, using the corresponding slot
- 4. Turn the MAYAH audio codec on
  - > The unit is updating, this can take a few minutes

✓ The unit firmware is now updated

### 2.4.4 Update via FTP



The default FTP access data are:

- Host/Server: (IP address of the unit)
  - Username: Admin
  - Password: Power

Requirements:

- The update file has been downloaded and is available on your computer
- The MAYAH audio codec can be reached via IP or LAN
- An FTP client is ready and available
- 1. Open the FTP client
- 2. Enter the FTP access data for your MAYAH audio codec and connect
- The FTP connection between your computer and the MAYAH audio codec is being established
- 3. In the FTP client, navigate to the folder containing the update file
- Copy the update file from that folder into the root folder of the unit
   ➤ The file is transferring, this can take a few minutes
- 5. Disconnect the FTP connection
- 6. Turn the MAYAH audio codec off and on
  - ✓ The unit firmware is now updated

## 2.5 Reset Audio Codec

There are three ways to bring the MAYAH Codec back to the factory defaults. These three options will be explained in the following sections:



This feature should only be used by an expert user or under instruction from a MAYAH employee.

#### Attention! Loss of Data!

Upon factory reset the entire configruation of the device will be set back to factory defaults! Network settings, codec quality profiles, phone book entries and all presets created by users will be deleted!

Only reset the WebRemote if you are absolutely certain that you want to do this. Consider exporting your configuration files before proceeding, so that you can import them again later.

## 2.6 Algorithms

The following algorithms are supported by the various units that support the WebRemote

G.711
G.722
MPEG Layer2
MPEG Layer3
Linear
Opus
MPEG AAC
4SB ADPCM
aptx / Enhanced aptX
AES Transparent

## 2.7 Boot Script



This operation should only be performed by an expert user or under instruction from a MAYAH employee.



This configuration method can be particularly useful for all MAYAH audio codec models without front panel controls in case that the access data have been lost or the device has become unreachable via IP.



A file named mayah-command-scripts.txt can be used as a boot script. A boot script contains a set of direct commands (one command per line) for the MAYAH audio codec to execute upon boot.

All direct commands are described in the <u>Communication Reference Manual</u>. Please contact our <u>support</u> for more information on this.

## 2.8 Activate Keycodes

Keycodes are used to activate optional algorithms and features. Keycodes can be activated using the WebRemote, a boot script or a Telnet command.



If the required keycodes for the functions you want to enable have not been provided to you yet, contact our <u>support</u>.

## 2.9 Access Levels

The WebRemote can be accessed with different access rights. Here the default five are explained.



Your WebRemote may have more or less access levels and different login information, depending on the specifics of your order. The details of any additional access level and how to use them are explained to you upon receipt of the device, possibly through an extra manual. If you think the access levels of your WebRemote are incorrectly set up, contact our <u>support</u>.

Access Levels						
Username	WebExpert	WebUser	WebConnect	WebView	WebAdmin	
Password	WebExpertPower	WebUserPower	WebConnectPo wer	WebViewPow er	WebPower	
Status	Х	Х	Х	Х	Х	
Last	Х	Х	Х		Х	
Phonebook	Х	Х	Х		Х	
Direct	Х	Х	Х		Х	
Recorder	Х	Х			Х	
Mixer	Х				Х	
Setup	Х	Х	Х		Х	
Special	Х	Х			Х	
About/Help	Х	Х	Х	Х	Х	

## 3 Elements of the WebRemote

In this chapter the various elements of the WebRemote graphic user interface are named and explained.

### 3.1 GUI Overview

Here the graphical user interface (GUI) of the WebRemote is explained. It will show the various elements that make up GUI as well as explain their purpose.

<b>WEB₹</b> <i>R</i>	ЕМО	TE 4.	1				
Last Phonebook	Direct	Recorder	Mixer	Setup	Special	About/Help	
<ol> <li>Direct Dial via NET 3 SIP:te</li> <li>Direct Dial via NET 3 SIP:te</li> <li>Direct Dial via NET 3 SIP:e</li> <li>Direct Dial via NET 3 SIP:e</li> <li>Phonebook#9:Livewire 8</li> <li>Direct Dial via NET 3 SIP:7</li> <li>Phonebook#15:echotest</li> <li>Direct Dial via NET 3 RTP</li> </ol>	estmayah1 evice001@sip.m. chotest1 ip:testuser2@de 8.52.128.27 ://62.214.4.52	ayah.de r.mayah.com					Play Play Record Framed Connect SIP FEC AJC Alarm DIAL
Status Codec Netw	ork Interface	[000 00:00:	00] 🕒		1	<b>〈</b> 1	
Local Device Name: Centauri 5000 Interface: NET LAN 1: 192.168.16.151	Algorithm: Samplerate: Bitrate: Mode: Resolution:	Encoder Opus 48 kHz 160 kBit/s Stereo 16 Bit	Decode Opus 48 kHz 160 kBit Stereo 16 Bit	er /s	Connected De Device ID: Address: Protocol:	evice unknown no connection	

Those elements of the GUI marked underlined and blue in the table below have their own separate sections that explain them in more detail. Click on them to instantly jump to their respective sections.



Your particular WebRemote version may display more, less or different menu tabs than can be seen in the following screenshot. This will be the case if your version has been customized for special demands. To learn about any special menu tabs consult the manual of your WebRemote extension module.

If you think you have received the wrong WebRemote version, please contact our <u>support</u>.

GU	ll Overview		
a)	<u>Menu</u> <u>Tabs</u> เข	Navigate to the desired menus.	
b)	Control area	Displays the available information and options for the currently active menu tab.	
c)	Status indicators	Displays the status of the MAYAH audio codec and whether SIP, FEC or AJC are currently being used.	
d)	Dial / Disconnect	<ul> <li>DIAL establishes a connection to the currently selected endpoint. See 1991,</li> <li>Phonebook and Direct for more information.</li> <li>DISCONNECT ends the currently active connection</li> </ul>	DIAL and DISCONNECT are subcodec specific!
e)	Status information	Displays an overview of the connection, current encoder and decoder, the connected device, network and interface information.	Clicking on the < and > changes the displayed subcodecs. Clicking on the number opens a list of all available subcodecs and allows you to select a specific one.
f)	Level meters 18	Displays the dB levels for the current subcodec and selected	Click we to select a different level meter.

## 3.2 Status Indicators

At the right side of the Web Remote GUI the status indicators can be found. The different status indicators are explained in the table below.

## Elements of the WebRemote



Sta	atus Indicators	6	
a)	Connection state	Shows the connection state of the current subcodec. The actual information varies depending on the subcodec and current application mode.	<ul> <li>Framed (blue) the connection stands and the decoder is active</li> <li>Connect (orange) the device attempts to connect and the encoder is active</li> <li>Record the device is currently recording</li> <li>Play the device is currently playing a recording</li> </ul>
b)	Advanced IP technologies use	Shows whether SIP, FEC or AJC are currently in use.	<ul> <li>SIP (yellow) the MAYAH audio codec is registered at a SIP registrar</li> <li>FEC (yellow) FEC presets are active</li> <li>AJC (yellow) AJC activated for encoder and decoder</li> </ul>

c)	Lines (ISDN)	Shows currently active ISDN lines	Topmost is Line 1, followed by Line 2 and so on to the bottom one which is Line 8
d)	Alarm	Lights up if one of System Health parameters is out of tolerance range.	<ul><li>Following parameters are being checked:</li><li>Voltages</li><li>Temperatures</li><li>Fan</li></ul>

## 3.3 Level meters

This shows the dB levels of the various subcodecs, both for send and receive. The options are explained in the table below.



The last selection for the level meters is saved via Cookies. If cookies are not allowed or deleted it will always display the default.

Multichannel Send	Shows levels for multiple channels (send)
Multichannel Receive	Shows levels for multiple channels (receive)
Subcodec specific	Shows levels for a specific subcodec
off	Shows no levels

"Send 2 L/R & Receive2 L/R" is only displayed when the device is in Dual Mode.

In L/R & Out L/R	Shows levels for analog/digital
Rec L/R & Play L/R	Shows levels for recording and playback
Send2 L/R & Receive2 L/R	Shows levels for encoder 2 and decoder 2
Send L/R	Shows levels of the main encoder
Receive L/R	Shows levels of the main decoder
Headphone	Shows levels of the headphone jack

## 3.4 Menu Tabs

The main functions of the unit can be viewed and changed through the tabs displayed at the top of the WebRemote window. The menu tabs are explained in the table below.

Menu Tab	Function
Last	Establish a connection to one of the recently dialed destinations
Phonebook	Establish a connection to a previously saved Phonebook entry or create, edit or delete Phonebook entries
Direct	Establish a connection by manually entering a destination address or number
Recorder	Record a session to storage or play a recorded session
Mixer	Configure Gain, Out, Record, Send, Headphones and input and output properties
Setup	View and configure the settings of the device and to create and use premade profiles
Special	View and configure fundamental operation of the device and system health, be cautious when changing configurations here
About/Help	View basic information about the device as well as helpful links



You can jump to the part of the manual where a tab is explained by clicking on that tab in the table above.



More information about the actual operation of the WebRemote can be found in the chapter Web Remote Operation 24



If you are using any special extension modules provided by MAYAH your WebRemote Menu Tabs might contain more or less than the ones mentioned above. To learn about about any additional menu tabs provided by an extension consult the manual for that extension. Should you have not been provided with a manual for your extension module, please contact our <u>support</u>.

## 3.5 Status information

In the bottom part of the WebRemote GUI a general status overview is displayed. The information that is displayed is explained in the tables below.

Г

Codec			
Local Device			
Name	The name of the MAYAH audio codec model		
Interface	Which internet interface is currently used		
LAN 1	The IP address of the first LAN interface		
LAN 2	The IP address of the second LAN interface		
Encoder/Decoder			
Algorithm	The current codec algorithm used by the encoder/decoder		
Samplerate	The current samplerate set for the encoder/decoder		
Bitrate	The current bitrate set for the encoder/decoder		
Mode	The current audio mode set fr the encoder/decoder		
Resolution	The current bit resolution set for the encoder/decoder	Only applies to Linear audio, aptX and EaptX	
Connected Device			
Device ID	The device ID of the endpoint		
Address	The IP address of the endpoint		
Protocol	The network protocol used in the connection		

Network		
IP Network Status	Shows the current interface	
SIP Status	Shows the last SIP status or error message.	
Lost Packets	Shows number of lost IP packets for the current	

## Elements of the WebRemote

	connection	
Dropped Packets	Shows the number of dropped IP packets	Dropped packets are the result of a longer arrival time than the maximum audio delay set.
Jitter max	Shows the highest jitter measured during the current connection in milliseconds	
Jitter act	Shows the jitter in real time in milliseconds	
Rx-Bitrate	Shows the actual incoming bit rate at the decoder	Payload + IP overhead
Tx-Bitrate	Shows the actual outgoing bit rate of the encoder	Payload + IP overhead
FEC fixed	Shows how many errors have been corrected through FEC during the current connection	
FEC failed	Show how many errors have not been corrected through FEC during the current connection	

Interface		
Interface Status	Shows the current interface	
Transferrate	Shows the set transferrate	The default is "auto". This means the transferrate is automatically adjusted.
Duplex	Shows whether Duplex mode is turned on or off.	The default is "auto". This means the mode is automatically set.
Packetsize	Shows the selected packetsize.	"1" means the size of the packets is set automatically.
Prioritization	Shows whether Prioritization is on or off.	
VLAN	Shows whether VLAN is on or off.	

## 3.6 Multichannel WebRemote

The Multichannel WebRemote allows monitoring of multiple subcodecs at once. The elements of the Multichannel WebRemote are explained in the table below.

ТХ	Encoder with samplerate and bitrate	
RX	Decoder with samplerate and bitrate	
Connection	Status of the connection	
More statistics	Opens a view of additional statistics.	
Jitter max.	The highest Jitter that the current connection has experienced in milliseconds.	
Jitter act.	The current Jitter the connection is experiencing in milliseconds.	
Lost	Number of lost packages.	
Dropped	Number of dropped packages.	
Seq.Err.	Number of sequence errors.	
RX-Bitrate	Bitrate on the encoder	
TX-Bitrate	Bitrate on the decoder	
FEC	Status of FEC	On or Off
In	db levels on the In	
Out	db levels on the Out	



To learn how to access the Multichannel WebRemote see Web Remote.

## Elements of the WebRemote



An alternative method to access the Multichannel WebRemote is to change the URL in the web browser accessing the WebRemote. After the slash, change the index wr4.htm into index mc4.htm.

This chapter details the various menu tabs and items found in the WebRemote. As such it explains the actual operation and use of the WebRemote.

## 4.1 Last

In this tab the last 10 connections that have been established from this device are stored. This means the WebRemote can easily connect with those endpoints again with only a few clicks.



Only connections that were established from your device are saved. Connections which were established to your device from another source are not saved in this manner. If you still wish to enable easy connection with those in the future you have to enter them into the **Therebet**.

#### **Establish a connection**

- 1. Select the desired connection from the list
- 2. Click on DIAL
  - > The device is connecting, this can take a few seconds
  - > Once the connection has been established \_\_\_\_\_\_ turns into \_\_\_\_\_\_
  - $\checkmark$  The device is now connected to the desired endpoint



If the chosen connection was a **Phonebook** entry then the transmission will use the exact parameters used in that **Phonebook** entry. If the chosen connection was a **Direct** connection then the current codec settings will be used.



To disconnect afterwards, simply click on DISCONNECT

### 4.2 Phonebook

In this tab up to 256 predefined connections can be viewed, created, modified and deleted. It consists of a field for all the Phonebook entries to the left and the buttons for the various options on the right. These buttons are:

new	Creates new entry
edit	Edits existing entry
delete	Deletes existing entry

duplicate Copies and optionally edit an existing entry		Copies and optionally edit an existing entry
	sorted by index [>	Switchs how the list is sorted

### 4.3 Direct

This menu tab allows **Direct** connection to endpoints.



See Parameters for more information about the available options.

#### **Establish a connection**

- 1. Select the desired options from the drop-down menus
- 2. Enter the IP address of the desired endpoint in the Address field
- 3. Click on DIAL
  - > The device is connecting, this can take a few seconds
  - > Once the connection has been established \_\_\_\_\_\_turns into \_\_\_\_\_
  - ✓ The device is now connected to the desired endpoint

To disconnect afterwards, simply click on DISCONNECT

## 4.4 Recorder

This menu tab allows you to record audio to the internal or an external storage and playback these recordings.



Live recording or playback is only possible in uncompressed Linear (.wav). No recording or playback are possible if the device is in Dual Mode.

#### 4.4.1 Record

This menu item is for configuring and controlling the recording of a stream. The buttons and options are explained in the tables below.



To apply changes to the options during a recording is **not** possible. Changed settings are only applied when a new recording is started by clicking <u>record</u>.



When using FTP to upload a recording, the MAYAH audio codec will only attempt one upload.

Button	Function	
Record	Starts the recording. Buttons turns <b>red</b> when recording.	
Pause	Pauses the recording. Recording can be resumed later.	
Stop	Stops the recording. Recording is finalized on the storage medium.	
Default Record	Starts a recording with a default file, which can be immediately played in the Playback menu item.	

Name	Function	$\bigotimes$
Select Record Quality	Sets the codec profile for the recording. "Actual Setting" simply uses the quality of the audio as is.	
Select Record Medium	Sets where the recording will be saved.	
File Chunk Size (seconds)	Sets the length of a single recording file in seconds. When the set time is reached the current recording is saved in a file and a new file created. The recording continues without interruption.	If the value is set to "0" there is no set length. Everything is recorded to a single file until max file size is reached. Then a new file is created and recording continues without interruption.
Record File Name	Sets the file name structure of recorded audio files.	<ul> <li>File name variables:</li> <li>/year (current year in 4 digits)</li> <li>/yrsh (current year in 2 digits)</li> <li>/mon (current month as number)</li> <li>/day (current day of the month as number)</li> <li>/dow (current day of the week as number)</li> <li>/hour (current hour)</li> </ul>

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		<ul> <li>/min (current minute)</li> <li>/sec (current second)</li> <li>/ms (current millisecond)</li> </ul>
Record folder	Sets the name of the folder in which the recordings are saved.	Default folder name is TRACKS.
Record password	Sets the password for the recording	
Show passwords	Switches display of the Record Password and Password for FTP. If ticked passwords are displayed.	
FTP upload	Turns FTP upload on/off. If ticked recording files will be automatically uploded via FTP according to the following settings.	When ticked, further FTP options are displayed.
Delete files after upload	Sets the deletion of the files on the storage media after a successful upload via FTP.	Only a single upload attempt is made. If it fails, the file is not deleted on the storage media.
Host address	Sets the URL or IP address of the FTP upload server.	When using a URL, ensure that the DNS server is correctly set up in the network interface.
Username	Sets the username for the FTP login.	
Password	Sets the password for the FTP login.	
Target directory	Sets the target path on the FTP upload server.	If left empty, the files will be uploaded to the root directory.
FTP client	Sets FTP client to active or passive.	Leave on "passive" unless you know what you are doing.

Interface	Sets the interface that will perform the	
	upload.	

#### 4.4.2 Play

This menu items allows you to play recordings and other audio files from a storage medium. The buttons and options are explained in the tables below.



To display the files in the default folder change the folder or selected medium and return.

Button	Function	
Default Play	Plays the current default recording.	
Pause	Pauses the playback at the current point.	
Stop	Stops the playback entirely. When restarting playback it starts again at the beginning.	

Name	Function	$\textcircled{\begin{tabular}{c} \hline \hline$
Select Medium	Sets the medium from which files are played.	
Folder	Sets the path to the playback files.	When nothing is entered it equals the root folder.
Now playing	Displays the file that is currently playing.	
Available files	Displays the number of eligible files in the current folder.	
prelisten	Enables a quick sample when selecting a different file.	

### 4.5 Mixer

This menu tab allows the configuration and adjustment of the mixer settings. These include the following features:

- Gain adjustment for audio output
- Mixer matrix with individual level adjustment
- Support for up to 8 separate user-created mixer profiles
- 8 premade factory mixer profiles

Profiles	
Gain	
Out-Analog	
Out-AES	
Dual / Intercom	
Send	
Headphones	

## 4.6 Setup

This tab allows the general configuration of the WebRemote. The menus are the following.

- Profiles 30
- Current Codec 31
- Ethernet 31
- <u>3G/4G</u> 33
- **POTS** 37
- <u>SIP</u> 38
- <u>AJC</u> 40
- Applications 41
- **BGAN** 42
- **FEC** 43
- <u>RS-232</u> 44
- Redundancy 44
- **MPEG-TS** 46
- **NTP** 47
- Prioritization
- Miscellaneous 47
- <u>AES</u> 49
- **ISDN** 35

Here audio codec profiles can be created, edited, deleted and applied to the current settings. The options are explained in the table below.



The center part of this menu displays the currently available codec profiles. This includes factory and user-created codec profiles. To select a codec profile simply click on it.



To learn how to configure a codec profile see <u>Codec Profile Settings</u> 30.

Button	Function	
apply	Applies the currently selected profile to the current subcodec	
new	Creates a new codec profile	
edit	Edits the currently selected codec profile	
delete	Delets the currently selected codec profile	
sorted by index [>	Switches how the list of codec profiles is sorted	
Apply profile to Encoder Decoder	Sets whether to apply the codec profile to the encoder, decoder or both at once.	

#### 4.6.1.1 Codec Profile Settings

This section explains the options available when configuring a codec profile. The options are explained in the table below.



For **Follows** Remote is the best setting in most cases. Only set it to Local if you are sure what you are doing.



**Follows** should only be set to Local by an expert user or under instruction from a MAYAH employee.

**Anc. Data** and **IMUX** should only be changed by an expert user or under instruction from a MAYAH employee.

Name	Function	$\bigotimes$
Index	Shows the index number of the codec profile currently being created or edited	
Name	Sets the name of the codec profile	
Algorithm	Sets the audio coding algorithm	
S. Rate	Sets the samplerate in kHz	Range depends on the selected audio coding algorithm.
Bitrate	Sets the bitrate in MBit/s	Range depends on the selected audio coding algorithm.
Mode	Sets the codec profile to Mono or Stereo	
Resolution	Sets the audio resolution in bits	Range depends on the selected audio coding algorithm.
Protection	Sets the encoder CRC protection on or off.	Not available for all audio coding algorithms or automatic for some.
Follows	Sets the coder dependency to Remote or Local.	"Remote" uses FlashCast to automatically configure itself according to the settings of the other side.
Anc. Data	Sets how ancillary data is transported in the transmission.	Options depend on the selected audio coding algorithm.
IMUX	Sets the encoder IMUX (Inverse Multiplexer)	
File Type	Sets the kind of file type.	

#### 4.6.2 Current Codec

This menu item allows configuration of the codec profile of the current subcodec without creating and applying a whole new audio codec profile.



To learn how to configure a codec profile see Codec Profile Settings 30.

#### 4.6.3 Ethernet

This menu item allows Ethernet configuration, including packet size, delay transfer rate and mode. Both cards can be configured separately. The options are explained in the table below.



Entering the IP address 255.255.255.255 into the field for **Gateway**, **DNS Server** or **SNMP Server** disables that function.

#### <u>Attention!</u> Device Inaccessibility

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Using DHCP on MAYAH audio codecs without a front panel can cause the unit to become inaccessible if network conditions change.

Consider well before using DHCP on a unit without a front panel. You will need to know the IP address of the unit to reactivate the WebRemote in case of changing network conditions..

Name	Function	$\bigotimes$
Interface	Select the Ethernet card you want to configure.	
DHCP	Enables the MAYAH audio codec to configure its IP-settings automatically with the help of a DHCP server. This does not include SIP configuration.	DHCP = Dynamic Host Configuration Protocol
IP Address	Sets the IP address for the interface	
Netmask	Sets the subnet mask for the interface	
Gateway	Sets the IP address for the default network Gateway	
DNS Server	Sets the IP address of the DNS server	DNS = Domain Name System
SNMP Server	Sets the IP address of the SNMP manager. This address will be used as the destination for the SNMP traps.	SNMP = Simple Network Management Protocol
Packetsize	Sets the packet size of the IP datagrams used.	Recommendation: Leave the default value of "1". This means that the default packet size for each algorithm is automatically chosen. This usually means the least IP overhead and often best listening experience for the endpoint.
Delay	Sets the size of the receive buffer in milliseconds (ms)	The higher the value the more consistent the transmission. <b>Delay</b>

		should be higher than average network jitter. If AJC is enabled the higher <b>Delay</b> value will be used-
Transferrat	Sets the transfer rate for the network	
е	interface. Options are:	
	Auto (identifies transfer rate	
	automatically)	
	• 10 Mbit/s	
	• 100 Mbit/s	
Duplex	Sets the operationg mode for the	
Mode	corresponding interface. Options are:	
	Auto (identifies dupley mode	
	automatically)	
	Half duplex	
	• Full duplex	

#### 4.6.4 3G/4G

This menu item allows configuration of the settings for the 3G/UMTS card. The options are explained in the table below.



Settings in this menu should only be changed by expert users or under instruction from a MAYAH employee.

For standard users the default settings will suffice.

<u>Attention!</u> Blocked SIM card
The MAYAH audio codec will send the PIN to the SIM card automatically. Three failed attempts will block the SIM card.
Ensure the PIN is entered correctly before inserting the 3G/UMTS card or disable PIN unlock on your SIM card before proceeding.



An LTE/4G USB Dongle is available for MAYAH audio codecs. <u>Contact us to learn</u> more.

Name	Function	$\bigotimes$
PIN	PIN for your SIM card	
APN	APN credentials provided by your mobile service provider	APN values may be case-sensitive
User	Your user identification	
Password	Password for user confirmation	
Delay	Sets the size of the receive buffer in milliseconds (ms)	The higher the value the more consistent the transmission. <b>Delay</b> should be higher than average network jitter. If AJC is enabled the higher <b>Delay</b> value will be used-
Technology	Sets the prioritized connection type. The options are: • GSM only • 3G only • GSM first • 3g first • No change • Auto	
Domain	Sets the preferred domain behavior. The options are: • Circuit switched only • Packet switched only • Any: Circuit and/or packet switched • No preference • No change • Pcket switched attach on demand • Packet switched detach on demand	
Frequency	<ul><li>Sets the frequencies for 3G</li><li>communication. The options are:</li><li>Europe</li><li>U.S.</li></ul>	In different parts of the world different frequencies for 3G communication are used.

This menu items allows the configuration of the ISDN settings. The options are explained in the table below.



Settings in this menu should only be changed by expert users or under instruction from a MAYAH employee.

For standard users the default settings will suffice.



Attention! Blocked SIM card

The MAYAH audio codec will send the PIN to the SIM card automatically. Three failed attempts will block the SIM card.

Ensure the PIN is entered correctly before inserting the 3G/UMTS card or disable PIN unlock on your SIM card before proceeding.

Name	Function	$\textcircled{\begin{tabular}{c} \hline \hline$
Protocol	Sets the D-channel protocol. The options are: • DSS1 • NI1 • 5ESS • Jate • VN • AUSTEL	
Active layer 1 mode	Sets whether ISDN Layer 1 stays active all the time or not.	When the MAYAH audio codec is used in the Netherlands this should be set to "ON".
Answer time	Sets the telegram interval in milliseconds.	The called MAYAH audio codec sends out is 'telegram' 10 times until the ISDN answer delay expires.
РВХ	Sets the number for external access (if necessary)	PBX = Private Branch Exchange

PBX digits Predial	Sets the number of digits before the <b>PBX</b> becomes valid.	Example: PBX: 9 PBX digits: 5 a) Entered number: 1234 Dials: 1234 b) Entered number: 01234 Dials: 901234 Sometimes it is necessary to
	precedes every dialed number ( Direct or Phonebook)	use a special provider to guarantee the quality of the ISDN service or the carriage of ISDN
MSN	Sets the MSN (for DSS1 or VN4) or ID (other D-channel protocols) if required.	<ul> <li>MSN = Multiple Subscriber Number</li> <li>Common reasons to use MSN are:</li> <li>Multiple ISDN devices use the same ISDN bus (the unit and a telephone connected to the same bus)</li> <li>the unit is connected to a PBX</li> </ul>
SPID	Sets the SPID.	SPID = Service Profile Identifier SPIDs are only used with NI1 and 5ESS in North America. For these, every B-channel needs a seperate SPID. Please ask your ISDN provider for further details.
Redials	Sets the max number of redials that will be attempted.	Redials are attempted if the endpoint cannot be reached or if the endpoint drops the call.

Redial wait	Sets the time interval between redial attempts in seconds.	
G.711	Sets the coding method for ISDN telephony. The options are: • A-law (Europe) • μ-law (USA/Japan)	A-law uses non-linear PCM with 13 segments. μ-law uses non-linear PCM with 15 segments.
G.711 attenuation	Sets the attenuation of G.711 signals. The options are: • 0 dB (none, default) • 6 dB • 12 dB	This counters overmodulation of the G.7111 signals to prevent distortions.
G.711 ISDN service	Sets the service for G.7111 calls. The options are: • Speech (default) • Telephony	
Call prefix	Sets the call prefix for national and international calls. The left box is for <b>National</b> and the right box for <b>International</b> .	

#### 4.6.6 POTS

This menu items allows the configuration of the POTS settings. The options are explained in the table below.



POTS connections usually have very limited bandwidth. MAYAH audio codecs automatically evaluate the quality of the current connection and adjust the bit rate automatically, no matter what codec quality settings have been set previously. The most efficient MPEG-4 HE-AACv2 is used.

PBX	Sets the number for external access (if necessary)	PBX = Private Branch Exchange
PBX digits	Sets the number of digits before the <b>PBX</b> becomes valid.	Example: PBX: 9 PBX digits: 5 a) Entered number: 1234 Dials: 1234

		b) Entered number: 01234 Dials: 901234
Predial	Sets the predial number that precedes every dialed number ( Direct or Phonebook)	Sometimes it is necessary to use a special provider to guarantee the quality of the ISDN service or the carriage of ISDN
Redials	Sets the max number of redials that will be attempted.	Redials are attempted if the endpoint cannot be reached or if the endpoint drops the call.
Redial wait	Sets the time interval between redial attempts in seconds.	
Answer time	Sets the time interval between the successful establishment of a connection and the start of encoding.	Range is 100ms to 5,000ms. The lower the value, the earlier audio data is sent to the endpoint.
Audio delay	Sets the size of the receive buffer in milliseconds (ms)	Max value possible is 5,000ms. This value must be set before transmission begins. A change cannot be applied during a transmission.

#### 4.6.7 SIP

This menu items allows the configuration of the SIP settings. This also includes settings for STUN server connections. The options are explained in the table below.



SIP connections to public IP addresses do not require any special settings.



As soon as the STUN server connection is saved, it is always active. This function will send outgoing packets on all applicable IP ports to find out their external assignment for later use.

Name	Function	$\textcircled{\begin{tabular}{c} \hline \hline$
------	----------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Account ID	Selects the SIP registration profile.	
Account active		
Keep alive	Sets keep alive on or off.	
Use STUN	Sets the use of a STUN server on or off.	
Account Registrar	Sets the SIP registration server, which resolves the SIP address to a real IP address.	The address can be entered as an IP or URL. <i>Example</i> : sip.mayah.com
Account Phone Nr	Sets the phone number of the registration access data.	This is only necessary for some registrars.
Account Username	Sets the name of the registration access data.	
Account Password	Sets the password of the registration access data.	
Mask Password	Switches display of the Account Password on or off.	
Global Settings		
STUN server	Sets the name of the used STUN server.	
TCP-Port	Sets the TCP-port for the used STUN server.	
UDP-Port	Sets the UDP-port for the used STUN server.	
Redials	Sets the max number of redials that will be attempted for the used STUN server.	
Proxy	Sets the IP address of an optional proxy server.	
Subcodec Assignment	Links to the Subcodec Assignment	
SIP register overview	Links to the SIP registrar overview.	

This menu items allows the configuration of additional audio settings as well as AES settings. The menu items are explained in the table below.



In most cases it is unnecessary to change any settings in this menu item. The default settings work fine with most AES/EBU setups.



Every AES connection is assigned to a specific subcodec. *Example*: AES 1 IN and OUT are assigned to subcodec 1.

Name	Function	$\textcircled{\begin{tabular}{c} \hline \hline \\ \hline \hline \\ \hline $
Subcodec	Selects which subcodec is configured.	
Mono MIX IN	Sets the Mono MIX IN profile.	
Mono MIX OUT	Sets the Mono MIX Out profile.	
Clock Source present	Sets which clock sources are used.	
Clock Source	<ul> <li>Sets how the AES/EBU output is clocked.</li> <li>The options are:</li> <li>Clock (default): AES/EBU output is clocked internally</li> <li>AESSync: AES/EBU output is clocked according to AES Sync In signal</li> </ul>	Use AES Sync only if external clocking is necessary.
AES/EBU- Out prof.	<ul> <li>Sets Professional Mode on or off:</li> <li>On: Professional Mode is activated</li> <li>Off (default): Professional Mode is deactivated</li> </ul>	

### 4.6.9 AJC

This menu item allows you to change the Automatic Jitter Compensation. AJC automatically adapts IP transmission to network capabilities. The options are explained in the table below.



AJC works with the following interfaces: • Ethernet

- 3G/4G
- WLAN



If AJC is enabled the MAYAH audio codec and the WebRemote will automatically evaluate network conditions and adapt the transmission as follows:

Encoder:

- 1) increase packet size
- 2) lower the bitrate.

#### Decoder:

1) increase receive buffer.

Encoder mode	<ul> <li>Sets the AJC mode for the encoder. The options are:</li> <li>auto: AJC enabled</li> <li>off: AJC disabled</li> <li>default: AJC set to factory default (normally "auto")</li> </ul>
Encoder time	Sets time interval until next evaluation on the encoder.
Decoder mode	<ul> <li>Sets the AJC mode for the decoder. The options are:</li> <li>auto: AJC enabled</li> <li>off: AJC disabled</li> <li>default: AJC set to factory default (normally "auto")</li> </ul>
Decoder time	Sets time interval until next evaluation on the decoder.



AJC on the decoder side will only add additional buffer if the if the audio delay values of the interface is smaller than the jitter values.



#### 4.6.10 Applications

This menu item allows the MAYAH audio codec to be set into an advanced mode for specific applications. The options are explained in the table below.



To select the application mode simply use the drop-down menu.



Activating any special application mode disables the Recorder. The Recoder only works under **normal mode**. Starting the Recoder immediately sets the application mode to **normal mode**.



Activating certain special application modes will automatically change your **Mixer** settings. Should you have customized your **Mixer** settings ensure they are saved in a **Mixer** profile, so that you can easily apply them again later.

Mode	Description	Enabled models
normal mode	The standard mode. The default setting.	all
ISDN dual mode	Enables two independent mono ISDN connections.	CENTAURI IV 3001, C12
IP dual mode	Enables two independent mono IP connections.	all
multipoint ISDN	Enables multipoint ISDN.	CENTAURI IV 3001, C12
intercom	Enables an additional IP connection to a predefined IP address besides the main connection.	optional (not standard)
gateway mode	Enables Gateway mode.	all
backup mode	Enables Backup mode	all

#### 4.6.11 BGAN

This menu item allows you to change BGAN settings. The options are explained in the table below.



BGAN (Broadband Global Area Network) is a global satellite IP network suing portable terminals.

MAYAH audio codecs support the following terminals:



- Thrane & Thrane: Explorer 500 & 700
- Addvalue Communications: Wideye Sabre 1, Wideye Sabre Ranger

• Hughes Network Systems: 9201, 9250, 9350

BGAN	Sets BGAN on or off
BGAN PIN	Sets the BGAN PIN.
BGAN Username	Sets the BGAN Username.
BGAN Password	Sets the BGAN Password.

#### 4.6.12 FEC

This menu items allows configuration of the FEC settings. The options are explained in the table below.



FEC (Forward Error Correction) adds redundant data streams to allow error detection and correction. This increases bandwidth need and delay, but reduces required retransmission and data corruption. This ultimately means a more stable and clear transmission.



The FEC algorithm used by MAYAH is described here: <a href="http://www.ietf.org/rfc/rfc2733.txt">http://www.ietf.org/rfc/rfc2733.txt</a>



Additional information from MAYAH about FEC can be found here: <u>http://www.mayah.com/content/download/pdfs/appnotes/general/a n e 031.pdf</u>



See <u>Status Indicators</u> 16 for info about FEC monitoring.

lowest delay	25% overhead, up to 4 packets can be restored in case of burst error.
low delay	20% overhead, up to 5 packets can be restored in case of burst error.
middle delay	10% overhead, up to 10 packets can be restored in case of burst error.
low bitrate	20% overhead, up to 5 packets can be restored in case of burst error.

high security 25% overhead, number of packets that can be restored in case of burst error variable (highest possible).

#### 4.6.13 RS-232

This menu item allows configuration of the RS-232 interface. In MAYAH audio codecs the RS-232 interface is meant for ancillary data. For the CENTAURI IV 3001 and CENTAURI IV 5000 you require a CENTAURI IV RS232 USB Adapter to use an RS232 connection.



In most cases ancillary data transfer between two MAYAH devices can be done automatically. This also includes transportation of the data from/to GPIO interface.

Baudrate	Sets the baudrate. Values range from 1,200 to 115,200.	
Databits	Sets the number of data bits. Values range from 5 to 8.	
Parity	<ul> <li>Sets a parity check on or off. The options are:</li> <li>None</li> <li>Even (parity check on an even bit)</li> <li>Odd (parity check on an odd bit)</li> </ul>	
Stop Bits	<ul><li>Sets stop bits. The options are:</li><li>1</li><li>2</li></ul>	
Handshake	Sets handshake on or off. The options are: • None • Xon/Xoff • RTS/CTS • DSR/DTR	This means signals are transmitted back and forth to control the transmission.

#### 4.6.14 Redundancy

This menu item allows setting up a secondary IP steam to lower error rate through redundancy. The options are explained in the first table below. The second table explains what creating a new redundancy profile or editing an existing one looks like.



- 1) first LAN interface is used for the primary audio transmission
- 2) second LAN interface is used for the redundant audio transmission and control tasks



Ensure that both Ethernet interfaces are set up correctly, including address, netmask and gateway.



The IP port for the redundant connection is equal to the primary RTP port plus 1000. This means the default port for redundancy streaming is 6004.



For more details on redundancy streaming see the corresponding MAYAH <u>application</u> <u>note</u> on it.

new	Creates a new redundancy profile.
edit	Edits the selected redundancy profile.
delete	Deletes the selected redundancy profile.

Name	Sets the name for the redundancy profile.	This is how the profile will be displayed in the menu tab <b>Direct</b> .
Primary IP (LAN 1]	Sets the primary IP address of the endpoint.	
Direction	Sets the direction for the redundant stream. The options are: • send (Encoder only) • recv (Decoder only) • sendrcv (bi-directional connection)	
Redundant IP [LAN]	Sets the redundant IP address of the endpoint.	

### 4.6.15 MPEG TS

This menu item is for configuring an MPEG Transport Stream (TS). The options are explained in the table below.



For more details on MPEG TS see the corresponding MAYAH <u>applications note</u> on it.



Note that the settings in his menu are specific to the subcodec. Ensure the right subcodec is selected.

Name	Function	$\textcircled{\begin{tabular}{c} \hline \hline$
Session Name	Sets the session name.	This is displayed in the DIRECT tab when MPEG TS is chosen as mode.
TS Mode	Sets the session mode. Options are: • MPEG TS • DMB • DVB	
Interface	Sets the interface.	ASI requires that the optional ASI interface is installed
Enc. Profile	Sets the codec profile for the session	This should normally be set to MPEG-1 Layer 2 256 kbps, unless you are sure a different setting is required.
Provider	Sets the name for the "Provider" parameter.	
Service	Sets the name for the "Service" parameter.	
Destination IP	Sets the desired unicast or multicast IP address	
Transport Stream ID	Sets the Transport Stream ID.	Only enter something if it is required for the application.

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Const. Bitrate (kBit/s)	Sets a constant bitrate.	If left empty this option is turned off.
Stream ID	Sets the ID of the codec stream.	Enter "-1" for a random ID. May be required by a multiplexer.
Program ID	Sets the MPEG TS ID.	Enter "-1" for a random ID. May be required by a multiplexer.
Program No.	Sets the MPEG TS program number.	May be required by a multiplexer.
Add more streams	Sets additional streams on or off. Two independent mono programs with one stream.	Ensure that a codec profile using mono is chosen.

#### 4.6.16 NTP

This menu item allows configuration of the Network Time Protocol (NTP). This allows precise synchronisation of the internal date and time with an NTP server. The options are explained in the table below.



Note that if an NTP server address is entered as a URL, it can only be reached if DNS and Gateway are configured properly. It is recommended to use IP addresses.



Synchronization with newly added NTP servers happens after the current time interval is over.

Interval (s)	Sets the intervals after which time is synched, in seconds.
Address No. 1-5	Sets the address of up to 5 separate NTP servers

#### 4.6.17 Miscellaneous

In this menu items additional settings can be made that do not belong to any other specific category. The options are explained in the table below.



G.722 timeout is only available on models with an ISDN interface.

Name	Function	$\textcircled{\begin{tabular}{c} \hline \hline$
Device ID	Sets the Device ID that will be displayed to other devices when connected.	This might not always work correctly, especially when connecting to device not manufactured by MAYAH.
Date / Time	Sets the current time and date.	It is strongly recommended to use NTP servers instead of setting the date and time manually. See $NTP[47]$ for more details.
Front panel level mode		
TIMEOUTS		
Disconnect Timeout (s)	Sets the time period (in seconds) after which a connection is dropped if no framing is achieved.	
Telnet Remote Timeout (s)	Sets the time period (in seconds) after which a telnet remote control session is closed automatically.	This function is useful when a remote session was interrupted by the network. The unit would block other remote control attempts indefinitely if it did not automatically close the session after some time.
G.722 Timeout (s)	Sets the time period (in seconds) after which the unit automatically switches to G.7222 SRT coding during a non-IP transmission.	It is recommended that you leave this value at 30 seconds. This is high enough not to interrupt any auto-detection process, but should still be enough to achieve framing.
CONNECTIONS		
Accept mode	Sets whether incoming connections are accepted automatically or need to accepted manually.	Incoming connections can only be accepted via the front panel.

		Do <b>not</b> set this to manual if you are using a model without front panel controls.
Auto restore	Sets whether connections should be automatically restored after an unexpected connection loss (e.g. power outage).	In the current version "auto" equals "on". Turning it "off" is recommended for studio and voice-over applications to avoid undesired distant call costs.

#### 4.6.18 AES

This menu items allows the configuration of the AES/EBU interface. The options are explained in the table below.



In most cases it is unnecessary to change any settings in this menu item. The default settings work fine with most AES/EBU setups.



When changing the settings in this menu item a hardware reboot is recommended. A soft reboot might not suffice.

AES Out Sync	<ul> <li>Sets the clocking method for AES/EBU output. The options are:</li> <li>Clock: Clocked internally</li> <li>AES Sync: Clocked according to AES Sync In signal</li> </ul>	Use AES Sync only if external clocking is necessary.
AES master	<ul> <li>Sets the AES Master mode on or off. The options are:</li> <li>On: The unit acts as the clock generator for the AES audio interface</li> <li>Off: The AES/EBU input uses the clock supplied at the interface</li> </ul>	This must be left turned "On" for most operations. Only turn it "Off" if there is a specific reason.
ALL SRCs	Sets the Sample Rate Conversion. The options ares: • On: Internal SRC is enabled • Off: All internal SRCs are disabled	This must be left turned "On" for most operations. Only turn it "Off" if there is a specific reason.

AES/EBU out prof	Sets the Professional Mode. The options
	are:
	On: Professional Mode is activated
	Off: Professional Mode is deactivated

## 4.7 Special

Here advanced settings can be adjusted and system-related operations performed.



The settings in the entire menu tab should only be changed by expert users or under instruction from a MAYAH employee.

## 4.8 About/Help

Here the basic information about the device can be found, as well as useful links. These are:

Device Type	The exact device model
Serial number	The unit's serial number
Firmware version	The current firmware version
BIOS version	The current BIOS version
Webremote version	The current WebRemote version



All this data is required when submitting a support request to MAYAH.

Online Manual	A link to our selection of manuals
Online Support	A link to our MANTIS Support Ticket system
www.mayah.com	A link to our website