

Voice Tracking Control
Interface

VoiceTRX100
Instruction Manual

www.datavideo.com

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Disclaimer of Product & Services

The information offered in this instruction manual is intended as a guide only. At all times, Datavideo Technologies will try to give correct, complete and suitable information. However, Datavideo Technologies cannot exclude that some information in this manual, from time to time, may not be correct or may be incomplete. This manual may contain typing errors, omissions or incorrect information. Datavideo Technologies always recommend that you double check the information in this document for accuracy before making any purchase decision or using the product. Datavideo Technologies is not responsible for any omissions or errors, or for any subsequent loss or damage caused by using the information contained within this manual. Further advice on the content of this manual or on the product can be obtained by contacting your local Datavideo Office or dealer.

FCC Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Warnings and Precautions

1. Read all of these warnings and save them for later reference.
2. Follow all warnings and instructions marked on this unit.
3. Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this unit in or near water.
5. Do not place this unit on an unstable cart, stand, or table. The unit may fall, causing serious damage.
6. Slots and openings on the cabinet top, back, and bottom are provided for ventilation. To ensure safe and reliable operation of this unit, and to protect it from overheating, do not block or cover these openings. Do not place this unit on a bed, sofa, rug, or similar surface, as the ventilation openings on the bottom of the cabinet will be blocked. This unit should never be placed near or over a heat register or radiator. This unit should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should only be operated from the type of power source indicated on the marking label of the AC adapter. If you are not sure of the type of power available, consult your Datavideo dealer or your local power company.
8. Do not allow anything to rest on the power cord. Do not locate this unit where the power cord will be walked on, rolled over, or otherwise stressed.
9. If an extension cord must be used with this unit, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord rating.
10. Make sure that the total amperes of all the units that are plugged into a single wall outlet do not exceed 15 amperes.
11. Never push objects of any kind into this unit through the cabinet ventilation slots, as they may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock. Never spill liquid of any kind onto or into this unit.
12. Except as specifically explained elsewhere in this manual, do not attempt to service this product yourself. Opening or removing covers that are marked "Do Not Remove" may expose you to dangerous voltage points or other risks, and will void your warranty. Refer all service issues to qualified service personnel.
13. Unplug this product from the wall outlet and refer to qualified service personnel under the following conditions:



- a. When the power cord is damaged or frayed;
- b. When liquid has spilled into the unit;
- c. When the product has been exposed to rain or water;
- d. When the product does not operate normally under normal operating conditions. Adjust only those controls that are covered by the operating instructions in this manual; improper adjustment of other controls may result in damage to the unit and may often require extensive work by a qualified technician to restore the unit to normal operation;
- e. When the product has been dropped or the cabinet has been damaged;
- f. When the product exhibits a distinct change in performance, indicating a need for service.

Warranty

Standard Warranty

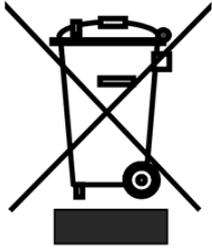
- Datavideo equipment is guaranteed against any manufacturing defects for one year from the date of purchase.
- The original purchase invoice or other documentary evidence should be supplied at the time of any request for repair under warranty.
- The product warranty period begins on the purchase date. If the purchase date is unknown, the product warranty period begins on the thirtieth day after shipment from a Datavideo office.
- All non-Datavideo manufactured products (product without Datavideo logo) have only one year warranty from the date of purchase.
- Damage caused by accident, misuse, unauthorized repairs, sand, grit or water is not covered under warranty.
- Viruses and malware infections on the computer systems are not covered under warranty.
- Any errors that are caused by unauthorized third-party software installations, which are not required by our computer systems, are not covered under warranty.
- All mail or transportation costs including insurance are at the expense of the owner.
- All other claims of any nature are not covered.
- All accessories including headphones, cables, batteries, metal parts, housing, cable reel and consumable parts are not covered under warranty.
- Warranty only valid in the country or region of purchase.
- Your statutory rights are not affected.

Three Year Warranty

- All Datavideo products purchased after July 1st, 2017 are qualified for a free two years extension to the standard warranty, providing the product is registered with Datavideo within 30 days of purchase.
- Certain parts with limited lifetime expectancy such as LCD panels, DVD drives, Hard Drive, Solid State Drive, SD Card, USB Thumb Drive, Lighting, PCIe Card are covered for 1 year.
- The three-year warranty must be registered on Datavideo's official website or with your local Datavideo office or one of its authorized distributors within 30 days of purchase.



Disposal



For EU Customers only - WEEE Marking

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.



CE Marking is the symbol as shown on the left of this page. The letters "CE" are the abbreviation of French phrase "Conformité Européene" which literally means "European Conformity". The term initially used was "EC Mark" and it was officially replaced by "CE Marking" in the Directive 93/68/EEC in 1993. "CE Marking" is now used in all EU official documents.

Introduction

In addition to this quick start guide, detailed tutorials can be found on the Datavideo Academy website www.datavideoacademy.com.

Supported Hardware

PTZ Cameras

- Datavideo PTC-140 HD Series
- Datavideo PTC-145 HD Series
- Datavideo PTC-285 4K Series
- Datavideo PTC-305 4K Series

Video Switchers

- Datavideo KMU-100+
- Datavideo iCast-10NDI
- Datavideo SE-2600/3200/4000 Series

Microphones

Model	Type	Supported Microphones	Max Zones	Multiple Zone	Far end detection
Sennheiser TCCM	Ceiling Microphone	N/A	User defined	N	Y
Sennheiser TCC2	Ceiling Microphone	N/A	User defined	N	Y
Shure MXW Microflex	Wireless System	Gooseneck, Boundary, Bodypack, Handheld	8 per receiver	Y	N
Shure MXA-910/910 (Lobe gating mode)	Ceiling Microphone	N/A	8	Y	Y
Shure MXA-920 (Automatic coverage mode)	Ceiling Microphone	N/A	User defined	Y	Y
Audio-technica ATND1061	Ceiling Microphone	N/A	15	N	Y
Shure MXCW Microflex Complete	Conference System	Gooseneck	250	Y	N
Sennheiser Speechline	Wireless System	Gooseneck, Boundary, Bodypack, Handheld	4 Per Receiver	Y	N

Type: Ceiling Microphone, Wireless Microphone or Conferencing system

Supported Microphones: Applicable to Wireless Microphone systems only, defines the types of supported microphone transmitters.

Max Zones: Maximum number of zones supported by a single microphone or receiver.

Multiple Zones: Is the microphone or receiver capable of reporting more than one active position.

Far end detection: Can the microphone provide VoiceTrx-100 with data to detect far end activity via its AEC/Reference input. **Please Note:** All microphones can support far end detection with an optional DANTE adapter, please see the 'Far end detection' section of this guide.

Connecting to the VoiceTRX100

Directly

By default, the VoiceTRX100 will output its control UI on HDMI port 1 or 2, the port that is connected when the VoiceTRX100 is powered on will be used.

1. Connect HDMI 2 to a monitor.
2. Connect a USB keyboard and mouse to the VoiceTRX100.
3. Login with the default credentials User: admin Pass: admin.

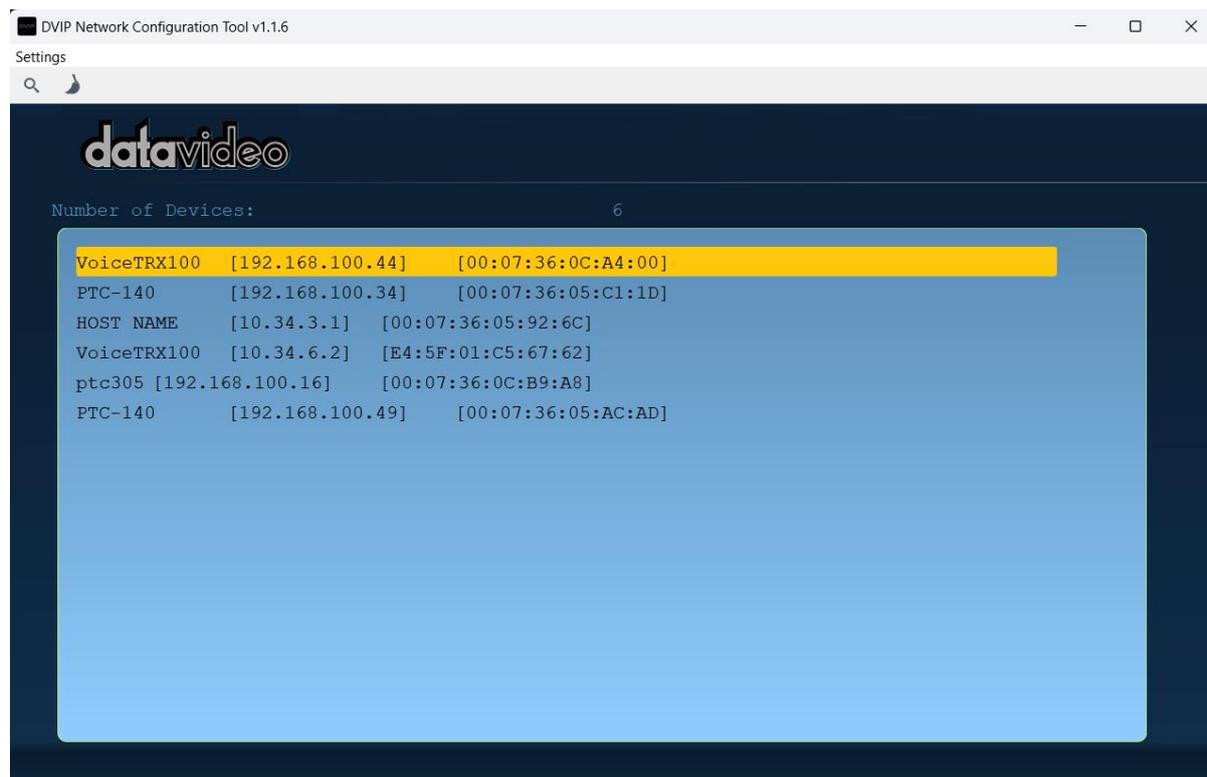
Via LAN

The VoiceTRX100 will automatically be assigned an IP address when connected to a network that supports DHCP, if the network does not support DHCP we recommend connecting directly to configure the static IP as above.

If using DHCP, you can discover the IP address of the VoiceTRX using the free DVIP tool. You can download the Windows DVIP Configuration Tool from the link below.

<https://www.datavideo.com/global/product/DVIP>

The tool is also available via the Google Play Store and Apple App store.



1. Connect your computer to the same LAN as the VoiceTRX100, ensure your computer is on DHCP so its assigned an IP address in the same range as the VoiceTRX100.
2. Open a web browser and navigate to the IP address of the VoiceTRX100. We strongly recommend you use the **Google Chrome** web browser.
3. Login with the default credentials User: admin Pass: admin.

Microphone Modules

Sennheiser TCC M

Preparation

Initial configuration: A router or managed switch with a DHCP server function will be required to set the Network settings.

Network Connections: Install the Sennheiser TCC M, VoiceTRX100 processor, PTZ cameras and video switcher in the same local area network.

Installation Location: Decide on the installation location for the Sennheiser TCC M. Choose a location that captures the participants' voices while considering the camera's field of view.

Firmware Updates: Ensure that the Sennheiser TCC M and all Datavideo equipment is updated to the latest version before configuration.

Discover the microphone and access the configuration UI

1. Download and install the Sennheiser 'Control Cockpit' software
<https://www.sennheiser.com/en-us/catalog/applications/assistive-listening-and-audience-engagement/control-cockpit/control-cockpit-111111>
2. Open 'Control Cockpit' and navigate to the 'Devices Tab'
3. If the TCC Mis not listed, you can add it manually using its IP address
4. Click the TCC2 microphones name to access its settings

Enable third party access

1. Navigate to the 'Access' tab
2. Enable third party access
3. Enter a Password and click 'OK' to save. Make note of the chosen password, you will need it to connect the TCC M to the VoiceTRX100 later

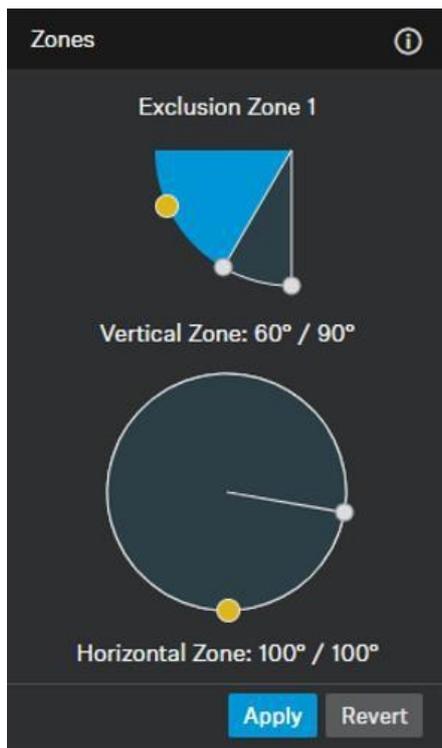
Zone Settings

The Sennheiser TCC M supports two types of zones:

Exclusion Zones

Exclusion Zones enable you to eliminate unwanted sources of constant noise. Up to five exclusion zones are supported. It is recommended to exclude any areas that will not be actively used.

Adjust the sliders to set a vertical and horizontal zone. The vertical zone can be adjusted from 0° to 90°, the Horizontal zone can be adjusted from 0° to 360°.



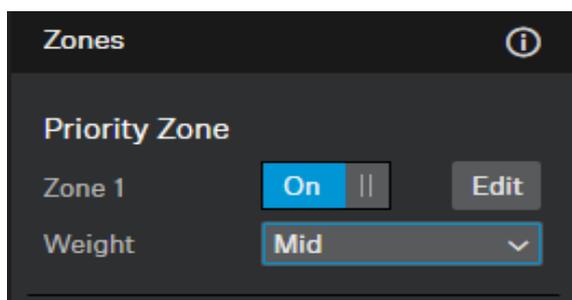
Priority Zones

The Priority Zone is used to keep the focus on the moderator's voice. The priority zone take priority over non-priority zones. One priority zone is supported, the 'Weight' can be set as follows:

Mid: Increases the weighting on the audio output from the selected zone by approximately 1.5 times the normal value.

High: Increases the weighting on the audio output from the selected zone by approximately 2 times the normal value.

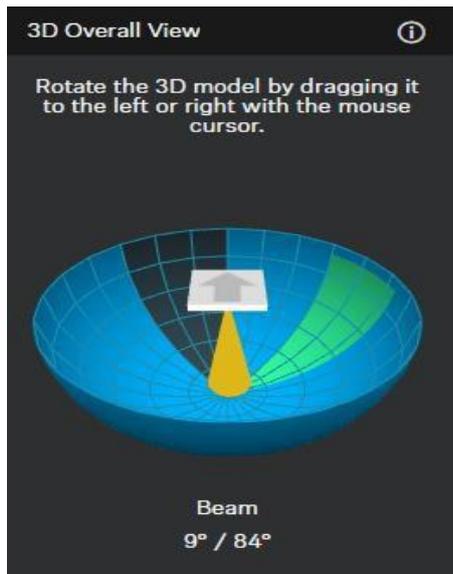
Max: Increases the weighting on the audio output from the selected zone by approximately 3 times the normal value.



3D Overall View

The 3D view will display the current beam position (loudest speaker) and priority / exclusion zones in real time.

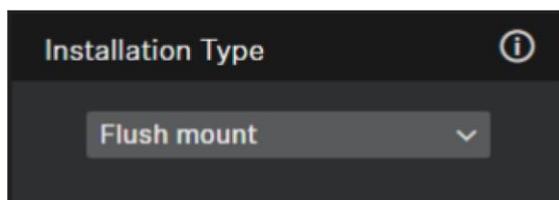
Priority zones are shown in green; exclusion zones are shown in dark blue. If both types of zone overlap, the exclusion zones will override the priority zone.



Audio Settings

Installation Type

Please ensure you set the appropriate installation type.



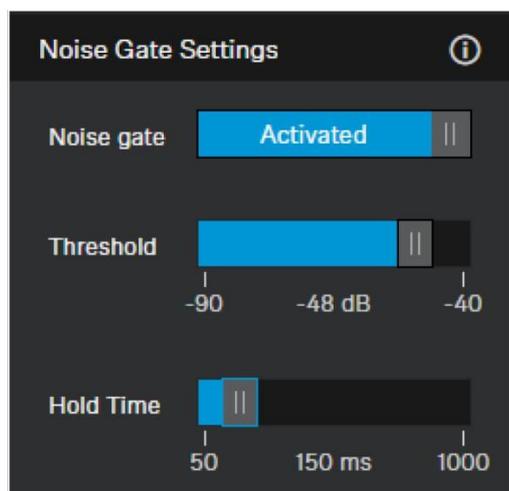
Flush Mount: The microphone array has been installed in or directly underneath the ceiling.

Suspended mount: The microphone array has been suspended from the ceiling.

Noise Gate

The noise gate function prevents the TCC M microphone from picking up unwanted background noise.

Threshold: The Noise Gate will open the audio output only after the audio level exceeds the set threshold for the set period.



Sensitivity Threshold

The Sensitivity Threshold setting lets you adjust the TCC M microphone's sensitivity to background noise to better identify the presenter. Depending on the setting, the sensitivity is either amplified or attenuated.

Normal(default): Recommended for speakers with a normal speaking volume.

Quiet: Recommended for speakers with a quiet speaking volume. The sensitivity of the microphone is increased.

Loud: Recommended for speakers with a loud speaking volume. The sensitivity of the microphone is attenuated.

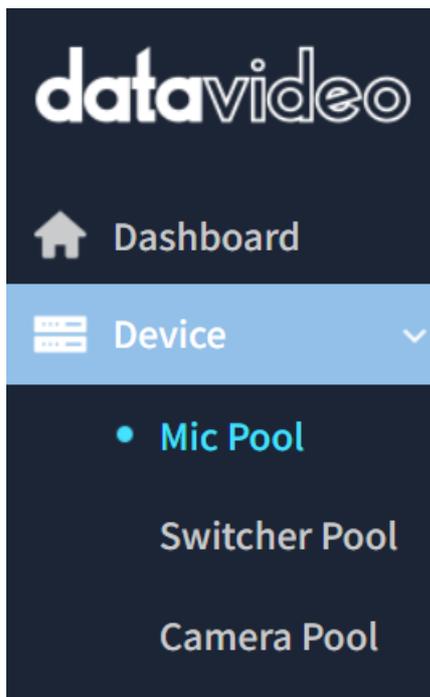
Intelligent Noise Control

Detects and suppresses unwanted static background noise in noisy environments for enhanced voice tracking. Enabling this feature is recommended if there is static background noise from fans, HVAC etc, the low settings is sufficient for most applications.

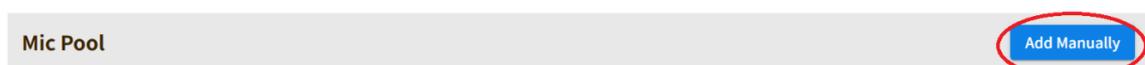
VoiceTRX100 Configuration

Connecting the Sennheiser TCC M microphone

1. Click the 'Device Menu' and then 'Mic Pool'



2. Click the 'Add Manually' button under the 'Mic Pool' heading.



3. Select 'Sennheiser TCC M' from the dropdown menu, enter a friendly name and the IP address of the Sennheiser TCC M microphone.

Add Manually ×

Select Module

Friendly Name

Device IP

[Add](#)

- Click the 'Add' button.
- You will see the microphone listed as below, click the 'Edit' icon to access the module settings.

Mic Pool Add Manually			
No.	Name	Status	IP
7	Shure MXA 920(Automatic Coverage)(NEW-920)	-	192.168.100.55
8	Sennheiser TCC M Microphone(Test TCCM)	-	192.168.100.181

Showing 7 to 12 of 8 entries Previous 1 **2** Next

- Enter the password (set earlier) and click the 'Save' button.

Device > Mic Pool > Sennheiser TCC M Microphone (Test TCCM) > [Edit Device](#)

General Fields ON

Device IP

Username

Password

Min Elevation (degrees)

Max Elevation (degrees)

Mic trigger dB

[Save](#) [Delete](#)

The following module options are available:

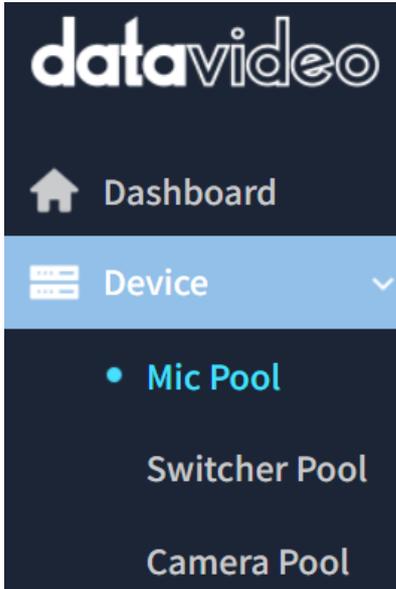
Device IP: IP address of the TCCM device.

Password: API password set on the TCCM device.

Mic Trigger dB: A zone change will only be triggered if this level is exceeded. The range is -90 to 0 (Default -45).

Zone Configuration

1. Click the 'Device Menu' and then 'Mic Pool'



2. Click the 'Add Manually' button under the 'Mic Pool' heading.



3. Select 'Sennheiser TCC-2' from the dropdown menu, enter a friendly name and the IP address of the Sennheiser TCC 2 microphone.
4. Click the 'Add' button.
5. You will see the microphone listed as below, click the 'Edit' icon to access the module settings.

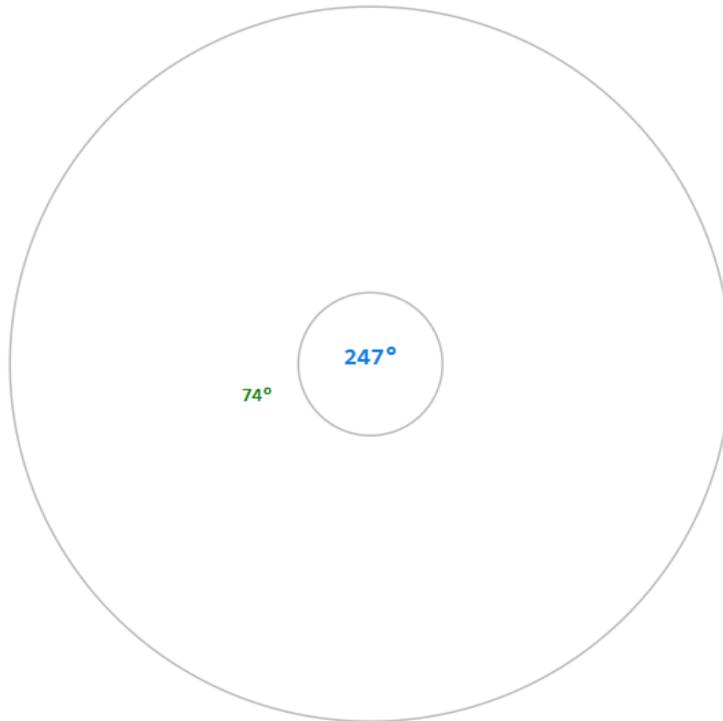


6. Scroll down and select the microphone for which you want to configure zones from the dropdown menu.
7. By default, the V2 mode is used, the legacy V1 mode is no longer recommended.

Select Unit

Mode

Freeze dot OFF



8. When voice activity is detected, a red dot will indicate the detected position. The dot is plotted using the azimuth angle and beam elevation reported by the microphone. The red dot will only appear if the audio level is above the threshold 'Mic trigger dB' set in the microphone's module setting.
9. Click the 'Add Zone' button and add zones as required, the currently selected zone will be shown in red.



10. Click 'Save' once you are happy with the zone configuration.

Sennheiser TCC 2

Preparation

Initial configuration: A router or managed switch with a DHCP server function will be required to set the Network settings.

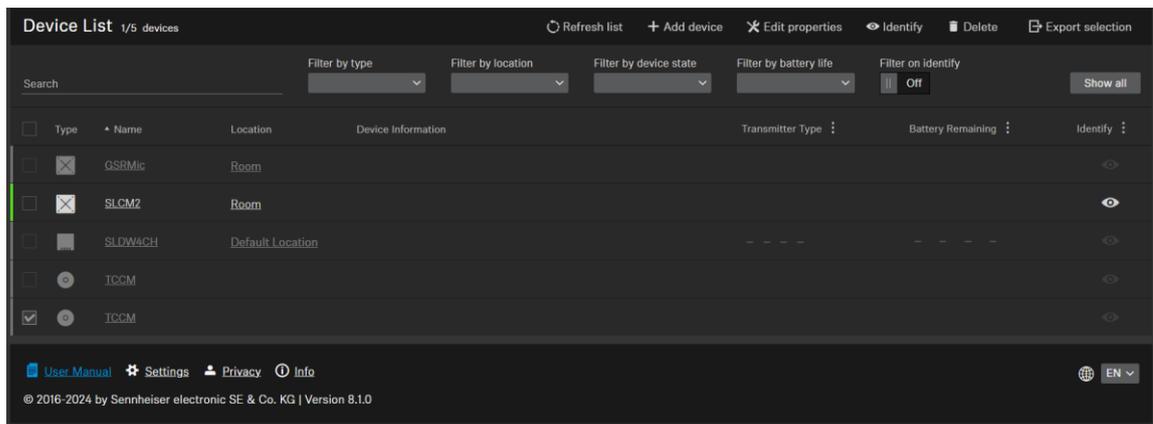
Network Connections: Install the Sennheiser TCC 2, VoiceTRX100 processor, PTZ cameras and video switcher in the same local area network.

Installation Location: Decide on the installation location for the Sennheiser TCC 2. Choose a location that captures the participants' voices while considering the camera's field of view.

Firmware Updates: Ensure that the Sennheiser TCC 2 and all Davavideo equipment is updated to the latest version before configuration.

Discover the microphone and access the configuration UI

1. Download and install the Sennheiser 'Control Cockpit' software
<https://www.sennheiser.com/en-us/catalog/applications/assistive-listening-and-audience-engagement/control-cockpit/control-cockpit-111111>
2. Open 'Control Cockpit' and navigate to the 'Devices Tab'
3. If the TCC2 is not listed, you can add it manually using its IP address



4. Click the TCC2 microphones name to access its settings

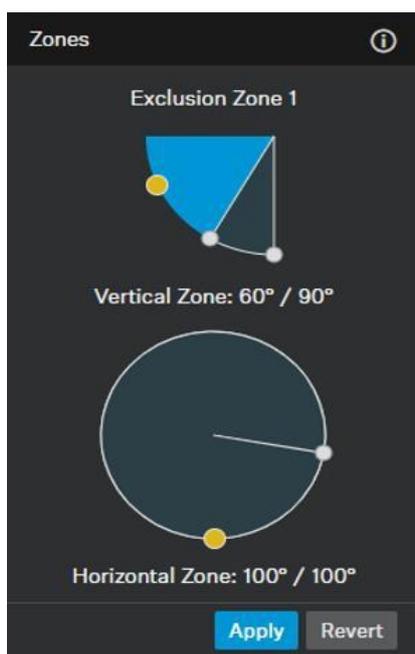
Zone Settings

The Sennheiser TCC 2 supports two types of zones:

Exclusion Zones

Exclusion Zones enable you to eliminate unwanted sources of constant noise. Up to five exclusion zones are supported. It is recommended to exclude any areas that will not be actively used.

Adjust the sliders to set a vertical and horizontal zone. The vertical zone can be adjusted from 0° to 90°, the Horizontal zone can be adjusted from 0° to 360°.



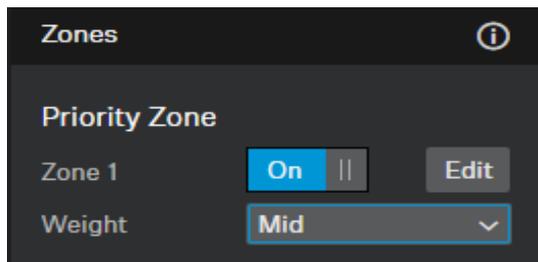
Priority Zones

The Priority Zone is used to keep the focus on the moderator's voice. The priority zone take priority over non-priority zones. One priority zone is supported, the 'Weight' can be set as follows:

Mid: Increases the weighting on the audio output from the selected zone by approximately 1.5 times the normal value.

High: Increases the weighting on the audio output from the selected zone by approximately 2 times the normal value.

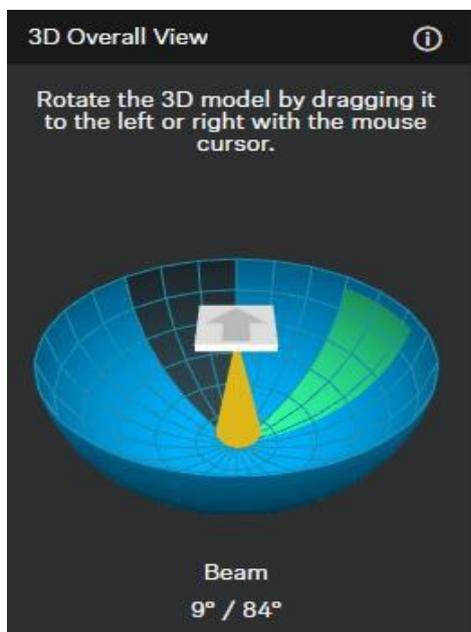
Max: Increases the weighting on the audio output from the selected zone by approximately 3 times the normal value.



3D Overall View

The 3D view will display the current beam position (loudest speaker) and priority / exclusion zones in real time.

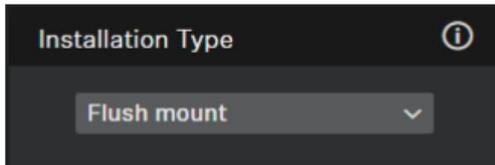
Priority zones are shown in green; exclusion zones are shown in dark blue. If both types of zone overlap, the exclusion zones will override the priority zone.



Audio Settings

Installation Type

Please ensure you set the appropriate installation type.



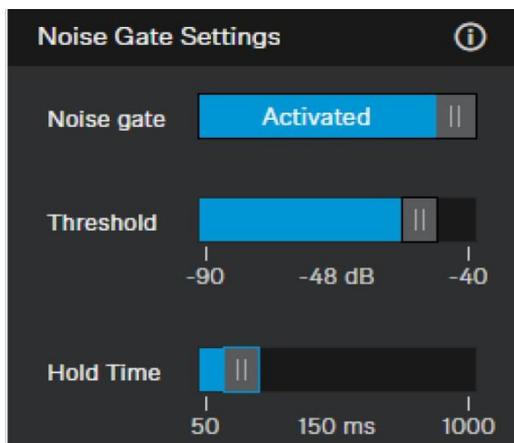
Flush Mount: The microphone array has been installed in or directly underneath the ceiling.

Suspended mount: The microphone array has been suspended from the ceiling.

Noise Gate

The noise gate function prevents the TCC M microphone from picking up unwanted background noise.

Threshold: The Noise Gate will open the audio output only after the audio level exceeds the set threshold for the set period.



Sensitivity Threshold

The Sensitivity Threshold setting lets you adjust the TCC M microphone's sensitivity to background noise to better identify the presenter. Depending on the setting, the sensitivity is either amplified or attenuated.

Normal(default): Recommended for speakers with a normal speaking volume.

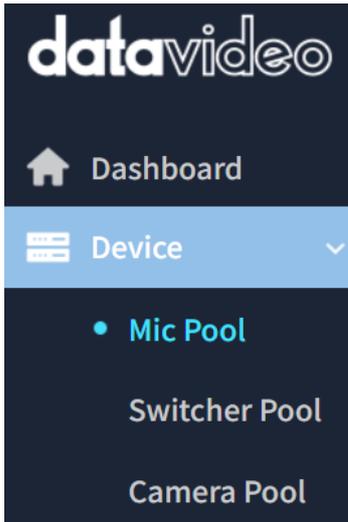
Quiet: Recommended for speakers with a quiet speaking volume. The sensitivity of the microphone is increased.

Loud: Recommended for speakers with a loud speaking volume. The sensitivity of the microphone is attenuated.

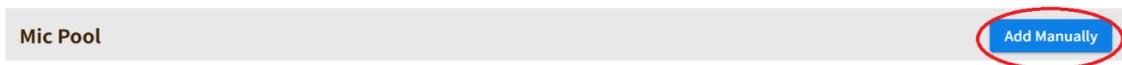
VoiceTRX100 Configuration

Connecting the Sennheiser TCC 2 microphone

1. Click the 'Device Menu' and then 'Mic Pool'



2. Click the 'Add Manually' button under the 'Mic Pool' heading.



3. Select 'Sennheiser TCC-2' from the dropdown menu, enter a friendly name and the IP address of the Sennheiser TCC 2 microphone.

Add Manually ×

Select Module

Friendly Name

Device IP

4. Click the 'Add' button.
5. You will see the microphone listed as below, click the 'Edit' icon to access the module settings.

No.	Name	Status	IP	
7	Shure MXA 920(Automatic Coverage)(NEW-920)	-	192.168.100.55	
8	Sennheiser TCC-2 Microphone(Test TCC2)	-	192.168.100.231	

Showing 7 to 12 of 8 entries

The following module options are available:

Device IP: IP address of the TCC2 microphone.

Port: Must match the port number set of the microphone, the default is 45.

Mic Trigger dB: A zone change will only be triggered if this level is exceeded. The range is -90 to 0 (Default -45).

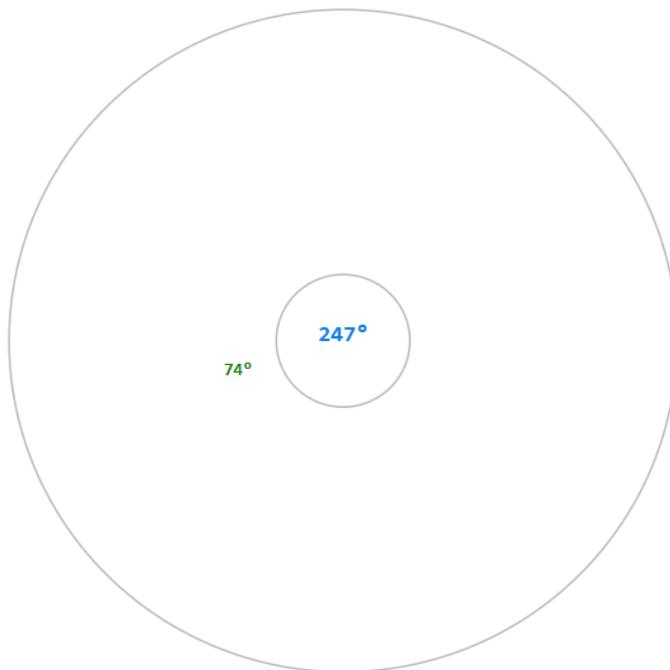
Far end detection (Beam Freeze position): The home zone (-1) will be triggered when the microphones beam freeze function is ON. The beam freeze position is dependent on the microphones rotation setting.

Zone Configuration

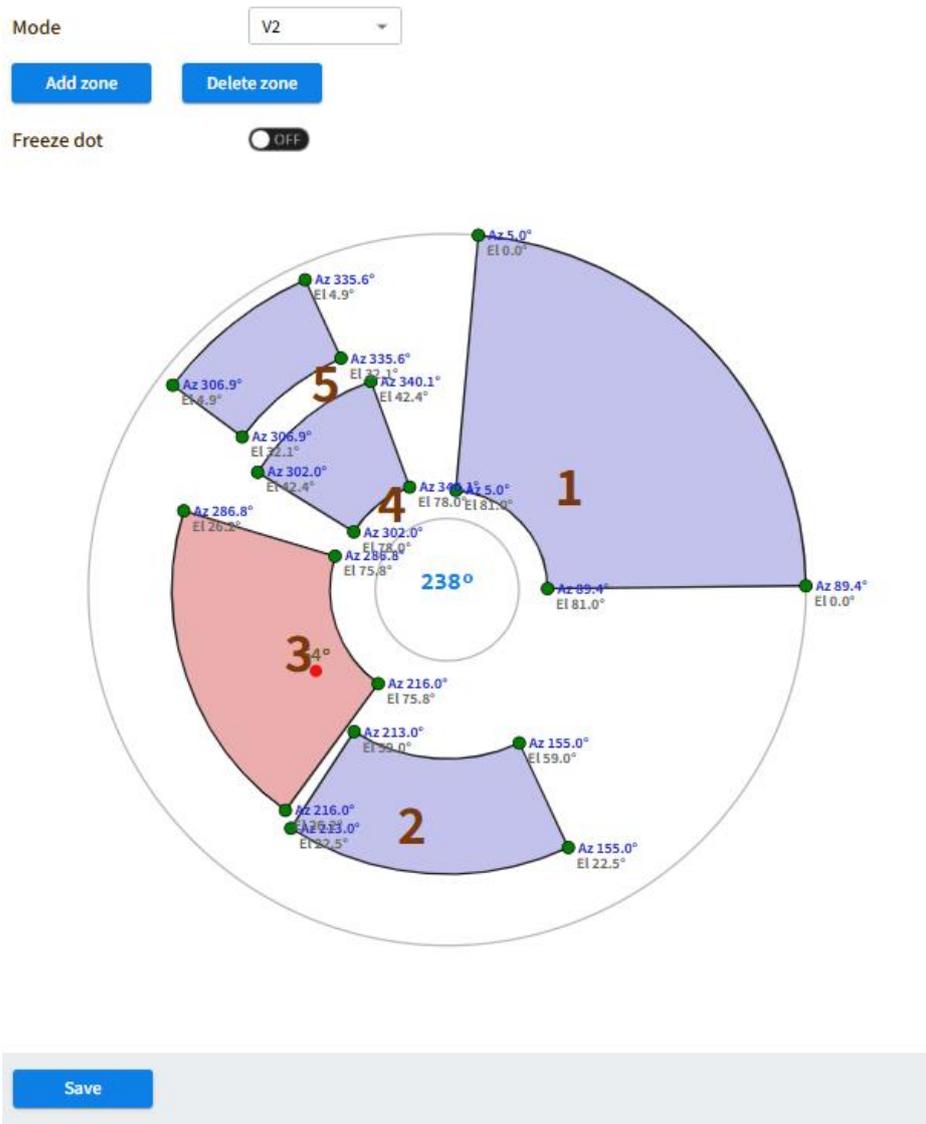
1. By default, the V2 mode is used, the legacy V1 mode is no longer recommended.

Mode

Freeze dot OFF



2. When voice activity is detected, a red dot will indicate the detected position. The dot is plotted using the azimuth angle and beam elevation reported by the microphone. The red dot will only appear if the audio level is above the threshold 'Mic trigger dB' set in the microphones module setting.
3. Click the 'Add Zone' button and add zones as required, the currently selected zone will be shown in red.



4. Click 'Save' once you are happy with the zone configuration.

Audio-Technica ATND1061

Preparation

Initial configuration: A router or managed switch with a DHCP server function will be required to set the Network settings.

Network Connections: Install the Audio-Technica ATND1061, VoiceTRX100 processor, PTZ cameras and video switcher in the same local area network.

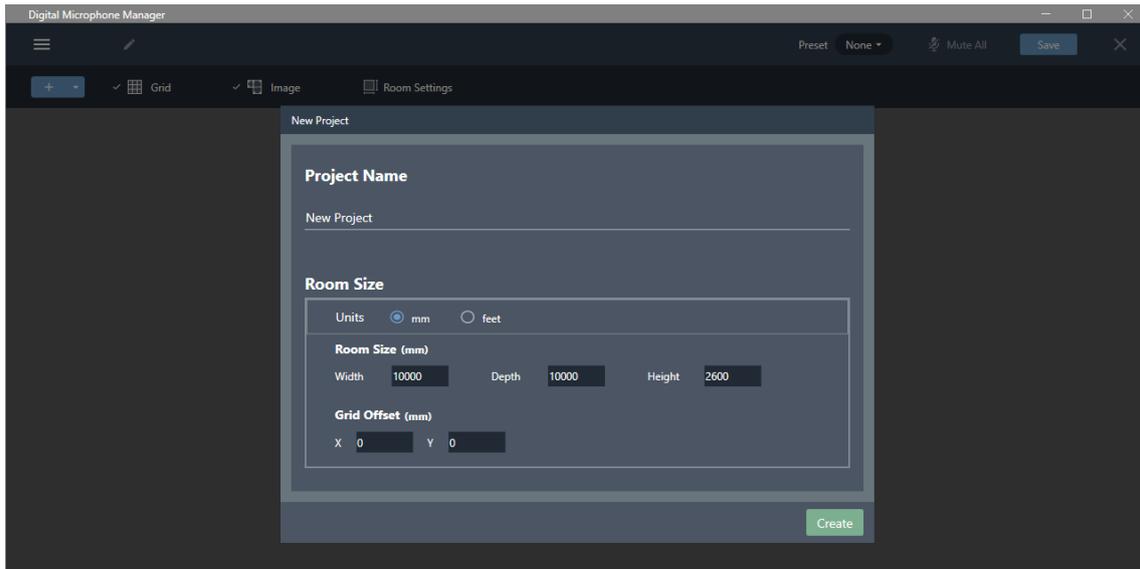
Installation Location: Decide on the installation location for the Audio-Technica ATND1061. Choose a location that captures the participants' voices while considering the camera's field of view.

Firmware Updates: Ensure that the Sennheiser TCC M and all Datavideo equipment is updated to the latest version before configuration.

Discover the microphone and access the configuration UI

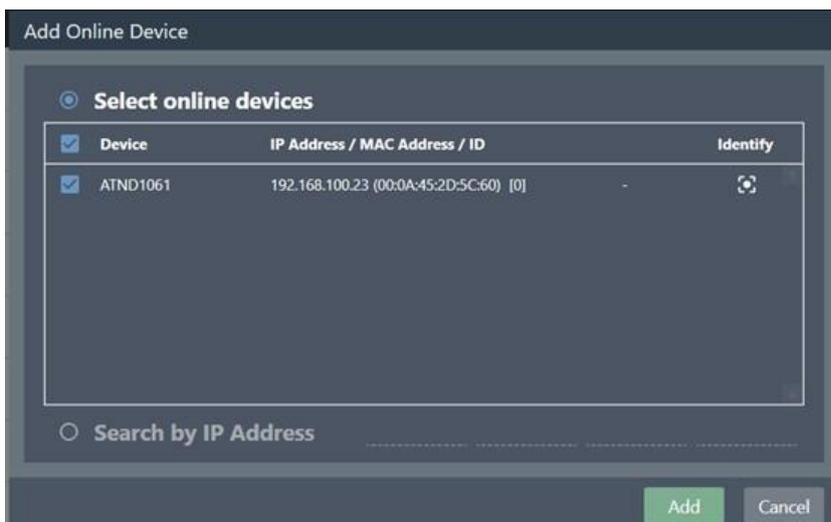
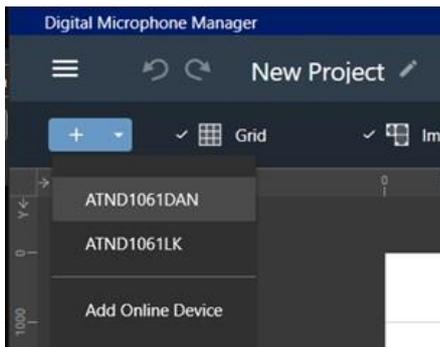
Download and install the Digital Microphone manager software <https://docs.audio-technica.com/eu/DigitalMicrophoneManager-1.0.1-Setup.zip>

Launch the app and set the room size and click the 'Create' button



Click the '+' button in the top left corner and select 'Add Online Device'

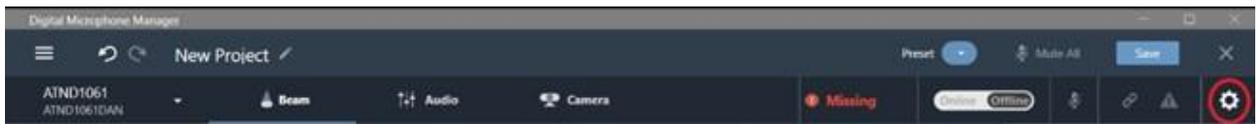
Select the microphone and click 'Add'



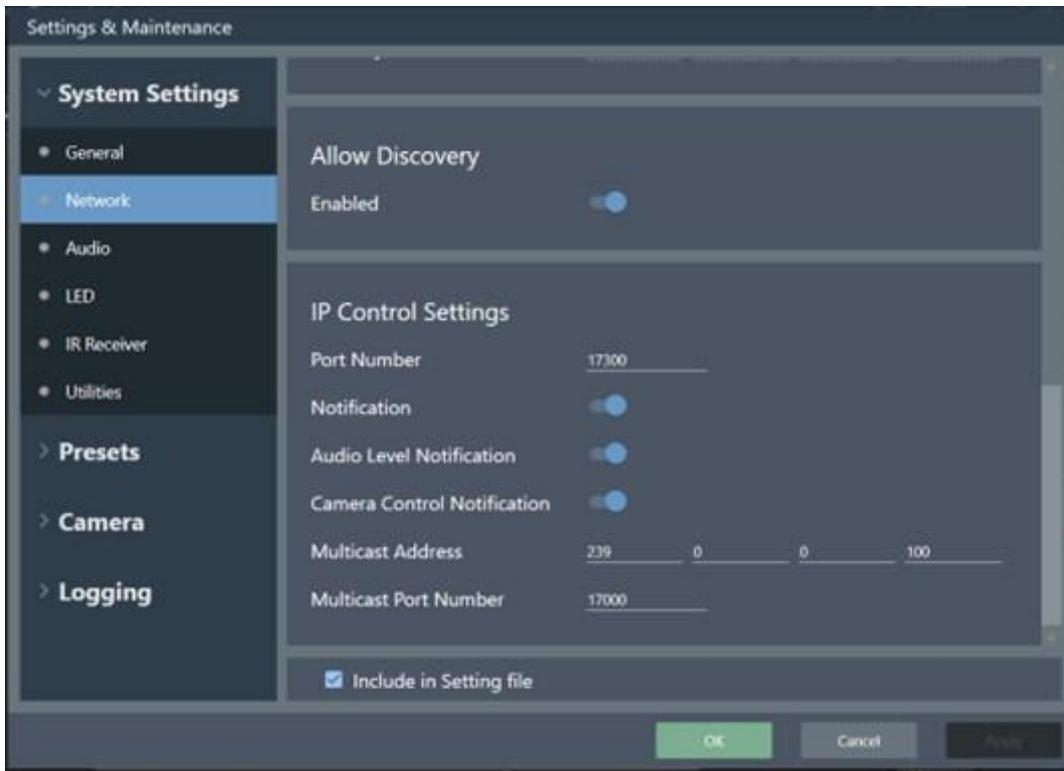
Enable third party access

Click the cog in the top right corner.

Last updated: 30-01-25



Click 'Network' and enable all notifications as below.



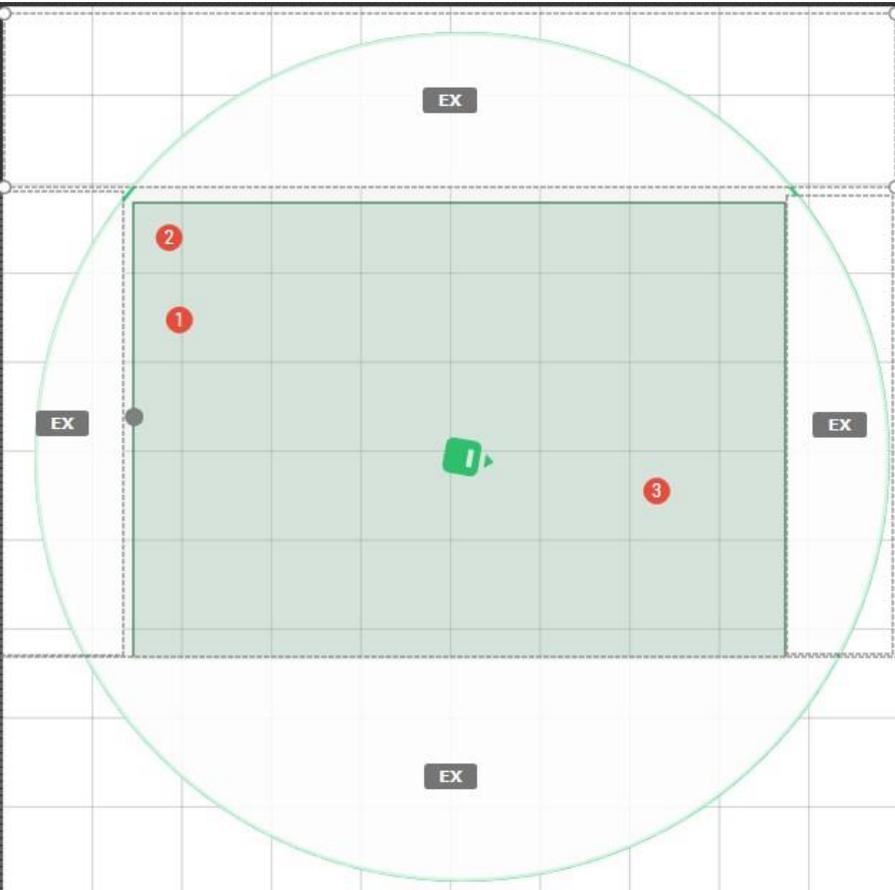
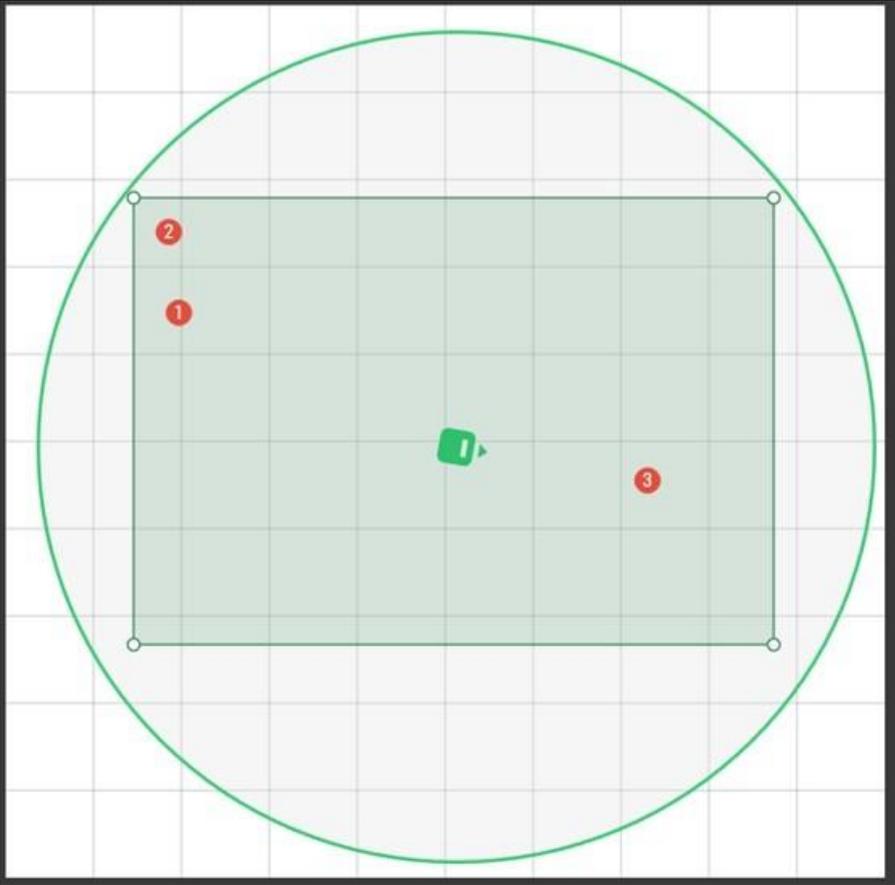
3. Make note of the IP address, you will need it to connect the ATND1061 to the VoiceTRX100 later.

Coverage and Camera Zone configuration

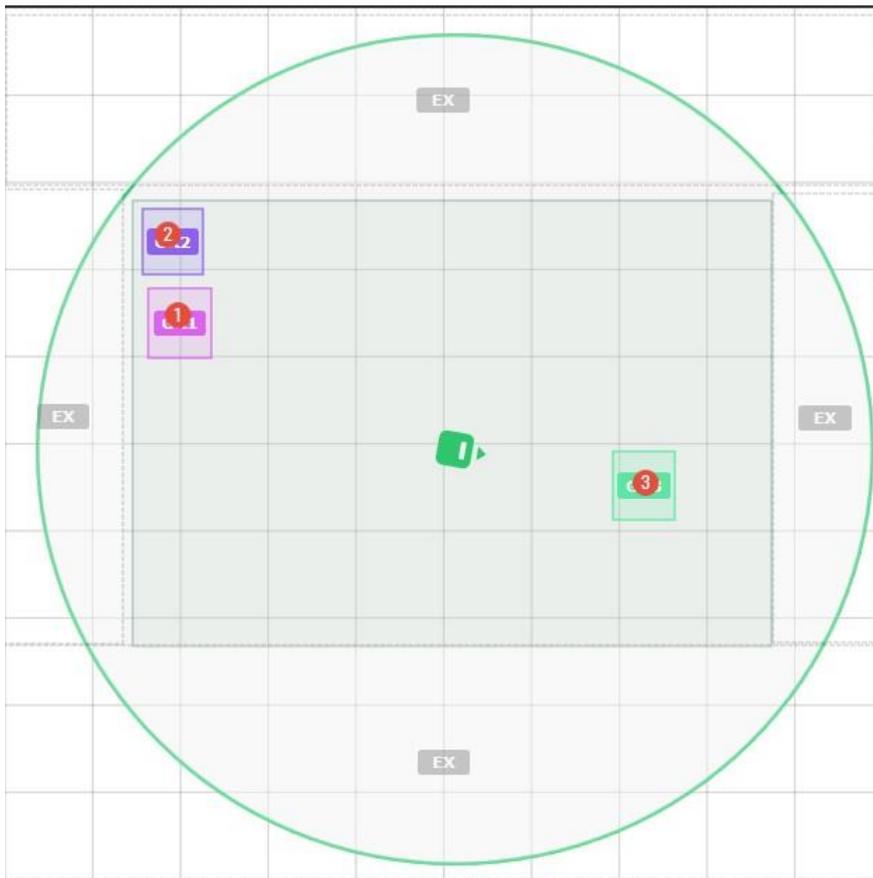
The UI will show a dot where audio is detected, you can use the 'Mark' option to mark the talker positions.



Add coverage and exclusions zones as required.



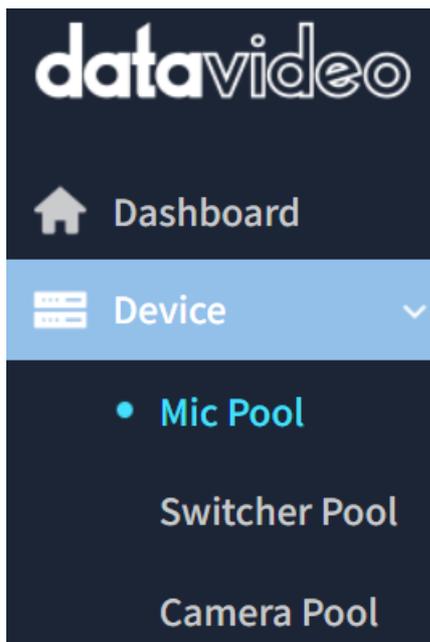
Add camera zones to cover the marked talker positions.



VoiceTRX100 Configuration

Connecting the Audio-Technica ATND1061 microphone

1. Click the 'Device Menu' and then 'Mic Pool'



2. Click the 'Add Manually' button under the 'Mic Pool' heading.

Mic Pool Add Manually

- Select 'Audio-Technica ATND 1000 Series' from the dropdown menu, enter a friendly name and the IP address of the Audio-Technica ATND microphone.

Add Manually ✕

Select Module Audio-Technica ATND 1000 Series ▾

Friendly Name Test ATND

Device IP 192.168.100.11

Add

- Click the 'Add' button.
- You will see the microphone listed as below, click the 'Edit' icon to access the module settings.

Mic Pool Add Manually			
No.	Name	Status	IP
7	Sennheiser TCC-2 Microphone(Test TCC2)	-	192.168.100.231
8	Audio-Technica ATND 1000 Series(Test ATND)	-	192.168.100.11

Showing 7 to 12 of 8 entries 6 ▾ Previous 1 2 Next

The following module options are available:

Device IP: IP address of the ATND microphone.

Port: Must match the port number set of the microphone, the default is 17300.

Zones: Set the number of zones requires, this should match the number of camera zones set on the microphone.

Zone Configuration

Zones 1-15 on the VoiceTRX-100 are automatically mapped to camera zones 1-15 on the ATND 1061.

Shure MXA 920 (Automatic Coverage)

Preparation

Initial configuration: A router or managed switch with a DHCP server function will be required to set the Network settings.

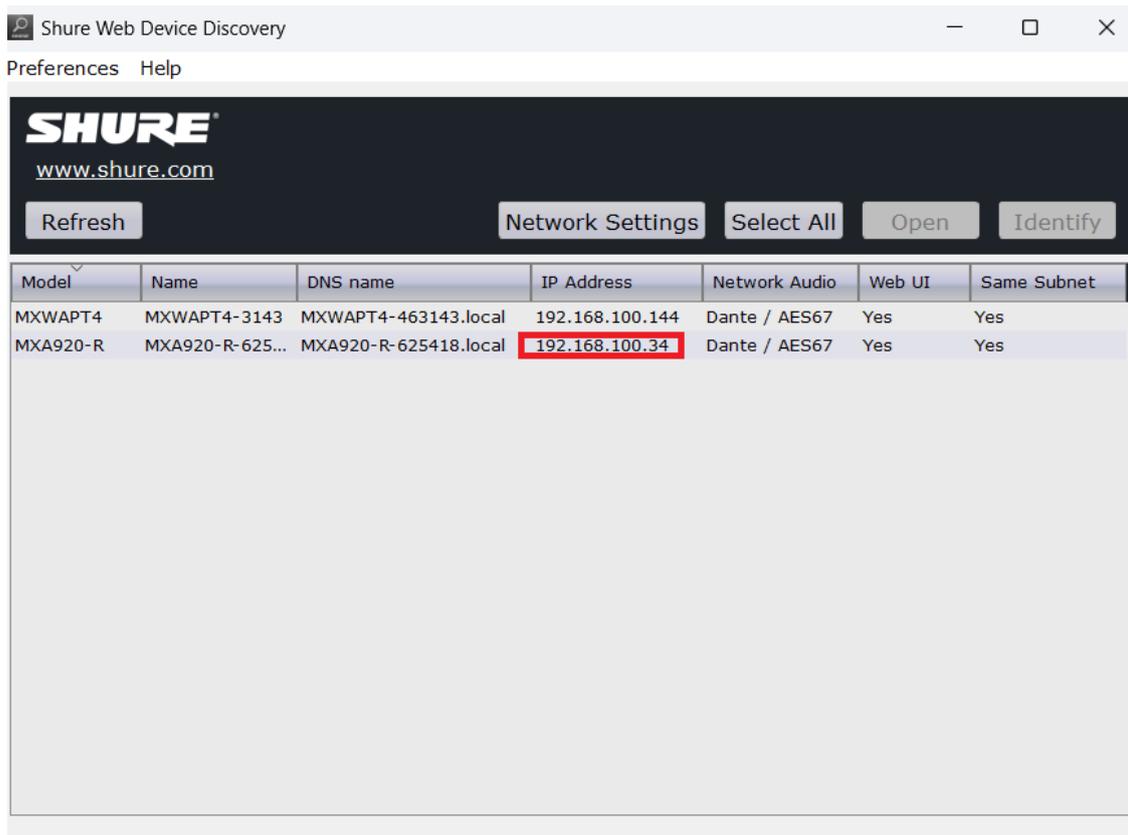
Network Connections: Install the Shure MXA 920, VoiceTRX100 processor, PTZ cameras and video switcher in the same local area network.

Installation Location: Decide on the installation location for the Shure MXA 920. Choose a location that captures the participants' voices while considering the camera's field of view.

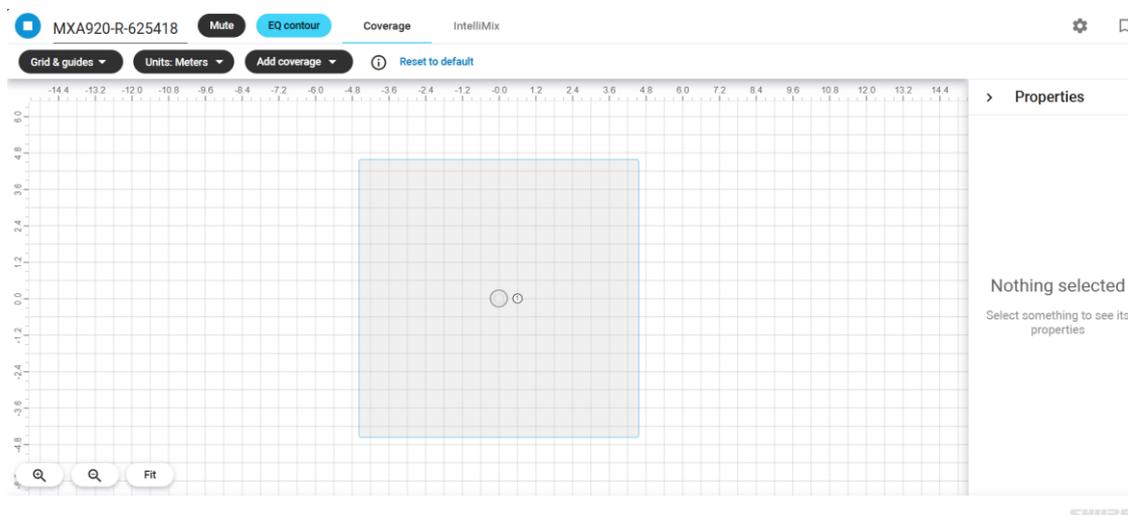
Firmware Updates: Ensure that the Shure MXA 920 and all Datavideo equipment is updated to the latest version before configuration.

Discover the microphone and access the configuration UI

1. Download and install "Shure Web Device Discovery" software [Device Discovery - Shure Web Device Discovery Application - Shure USA](#).
2. Open the software and note the IP address of the Shure MXA 920.



3. Type the IP address into your web browser to access the web interface of the Shure MXA 920.

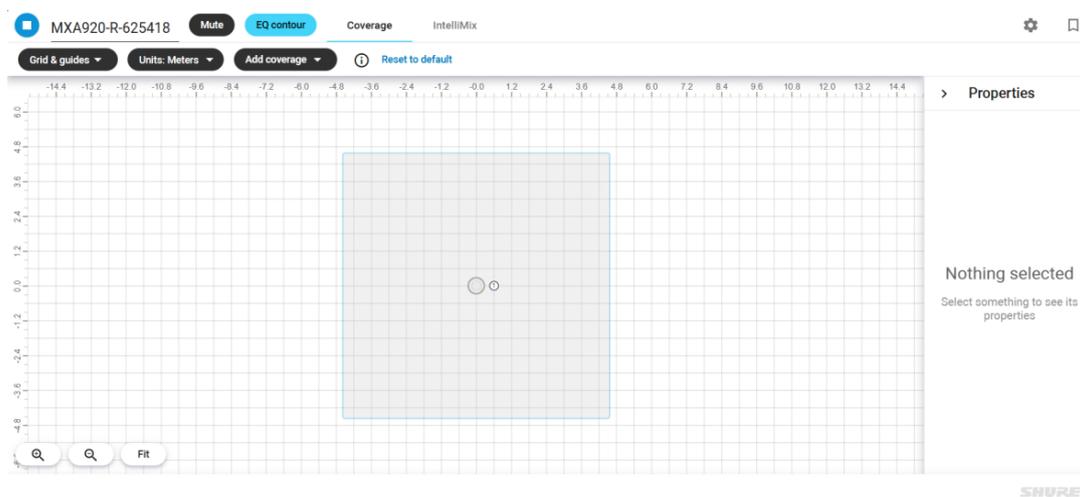


Coverage

1. 'Automatic Coverage' should be turned on.



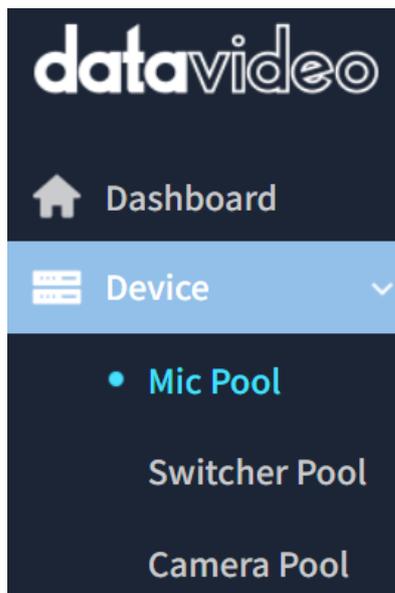
2. Add dynamic and dedicated coverage zones as required. By default, a single 9 x 9 dynamic coverage zone is enabled.



VoiceTRX100 Configuration

Connecting the Shure MXA 920 microphone

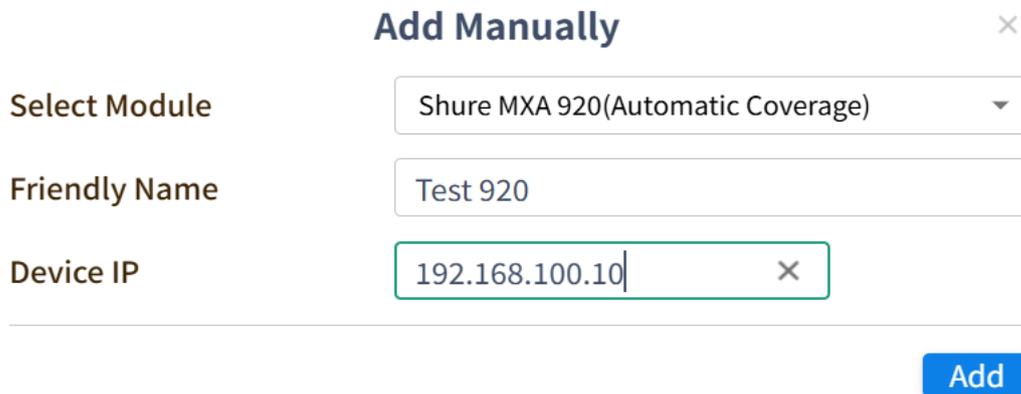
1. Click the 'Device Menu' and then 'Mic Pool'



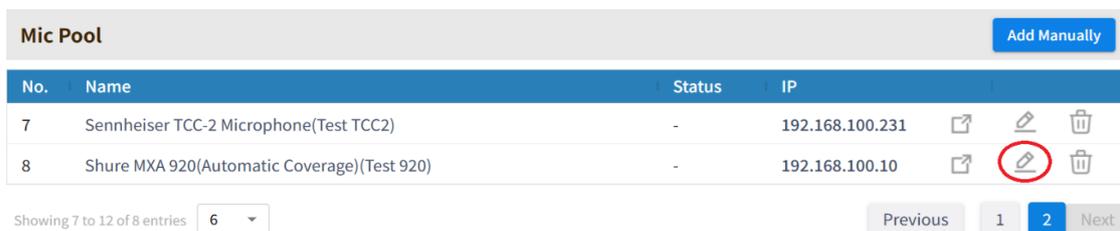
- Click the 'Add Manually' button under the 'Mic Pool' heading.



- Select 'Shure MXA-920 (Automatic Coverage)' from the dropdown menu, enter a friendly name and the IP address of the Shure MXA 920 microphone.

A screenshot of a form titled "Add Manually" with a close button (X) in the top right. The form contains three input fields: "Select Module" with a dropdown menu showing "Shure MXA 920(Automatic Coverage)", "Friendly Name" with the text "Test 920", and "Device IP" with the text "192.168.100.10" and a clear button (X). Below the fields is a blue "Add" button.

- Click the 'Add' button.
- You will see the microphone listed as below, click the 'Edit' icon to access the module settings.

A screenshot of a table titled "Mic Pool" with a blue header and a blue "Add Manually" button in the top right. The table has columns for "No.", "Name", "Status", and "IP". There are two rows of data. The second row, for "Shure MXA 920(Automatic Coverage)(Test 920)", has an "Edit" icon (pencil) circled in red. Below the table is a pagination control showing "Showing 7 to 12 of 8 entries" and a dropdown menu set to "6". There are also "Previous", "1", "2", and "Next" buttons.

The following module options are available:

Device IP: IP address of the Shire MXA 920 microphone.

Port: Must match the port number set of the microphone, the default is 2202.

Array height (cm): The array height from the floor. It takes on values of 122-914 centimetres (4-30 feet) in 1-centimetre increments.

Position Update Period (ms): 100ms to 99999ms. Represents how frequently talker positions should be reported.

These commands control the sensitivity of the algorithm that reports talker positions. Higher sensitivity means the algorithm is easier to trigger and therefore reports more positions.

Position Sensitivity (Localized): Controls the amount of localization data that the mic sends.

Position Sensitivity (VAD): Controls how sensitive the voice activity detection part of the algorithm is.

Position Sensitivity (Reflection/Height): Use to improve localization precision. You must provide an array mounting height to use this setting. Use reflection correction in rooms with many highly reflective surfaces.

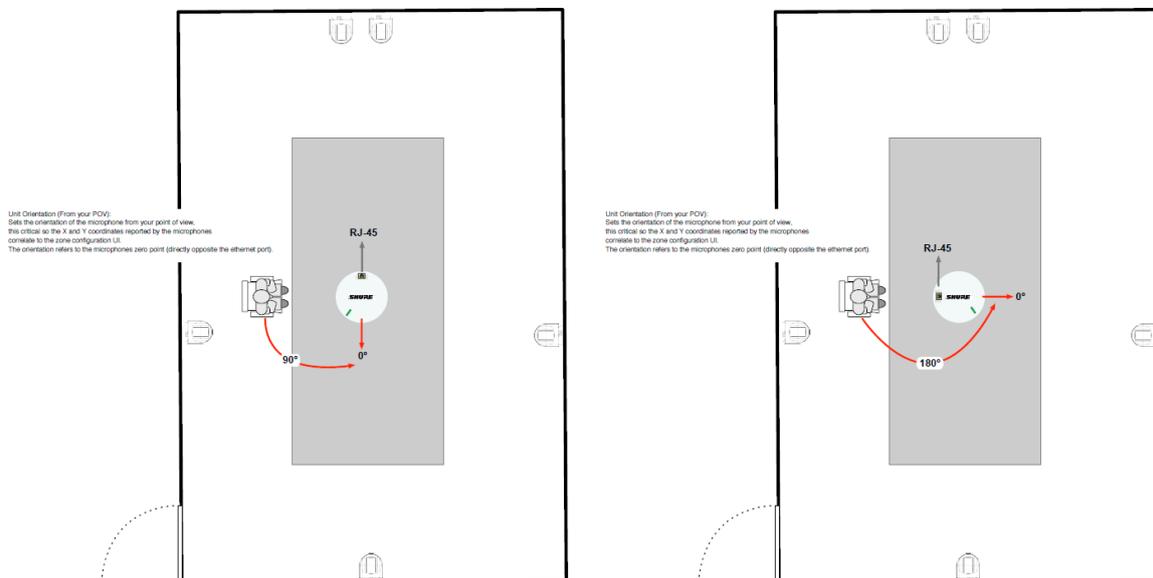
Min Elevation(cm): Set the minimum elevation, noise from outside this range will be ignored and will not trigger a zone change, use this setting to reduce the chance of noise pollution from above or below.

Max Elevation(cm): Set the maximum elevation, noise from outside this range will be ignored and will not trigger a zone change, use this setting to reduce the chance of noise pollution from above or below.

Far end Trigger dB: A zone change will only be triggered if this level is exceeded. The range is -90 to 0 (Default -45).

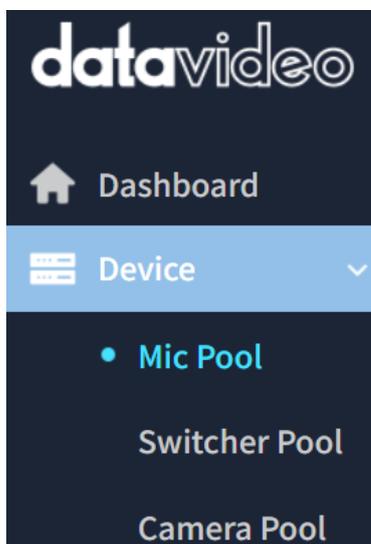
Far end detection: Enable or disable far end detection.

Unit Orientation (From your POV): Sets the orientation of the microphone from your point of view, this critical so the X and Y coordinates reported by the microphones correlate to the zone configuration UI. The orientation refers to the microphones zero point (directly opposite the ethernet port).

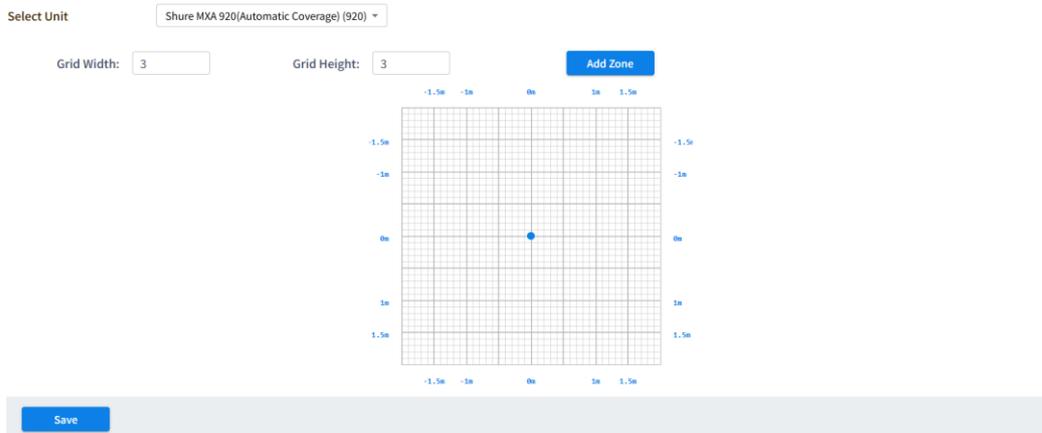


Zone Configuration

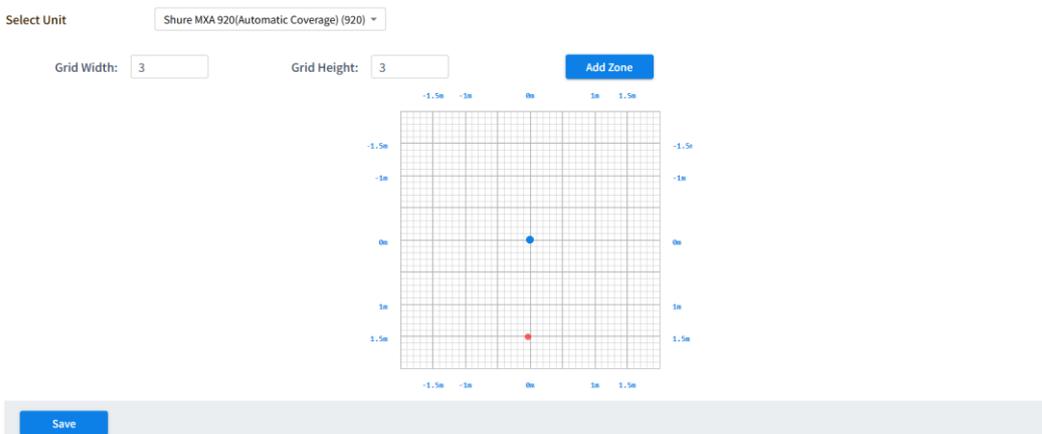
1. Click the 'Device Menu' and then 'Mic Pool'



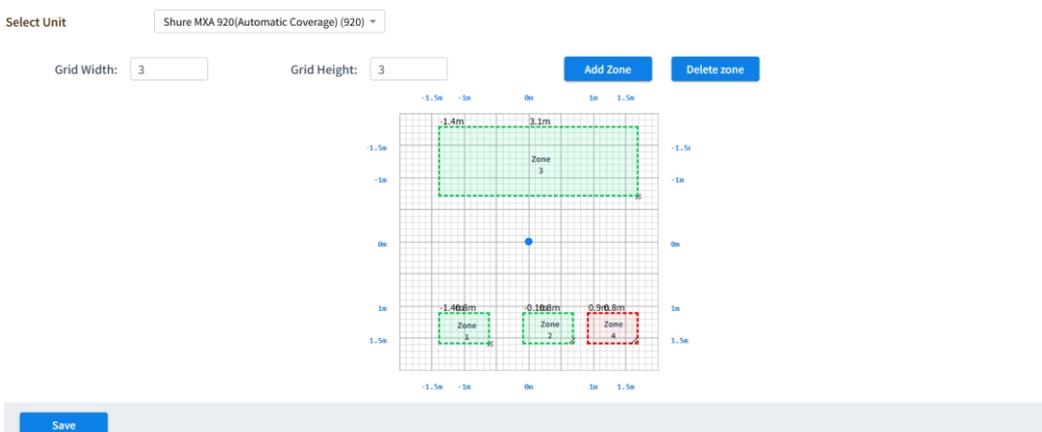
2. Scroll down and select the microphone for which you want to configure zones from the dropdown menu.



3. Set Grid Width and height to match the size of the room. You must ensure the grid size is covered by dynamic or fixed coverage areas (previously configured).
4. When voice activity is detected, a red dot will indicate the detected position. The dot will remain in position for the duration of the 'Home Period' after the voice activity is no longer detected, this is to help you position the zones. If the dot does not move as expected, please check the **“Unit Orientation (From your POV)”** setting in the module settings.



5. Click the 'Add Zone' button and add zones as required, the currently selected zone will be shown in red.



6. Click 'Save' once you are happy with the zone configuration.

Shure MXA 910/920 (Lobe gating mode)

Preparation

Initial configuration: A router or managed switch with a DHCP server function will be required to set the Network settings.

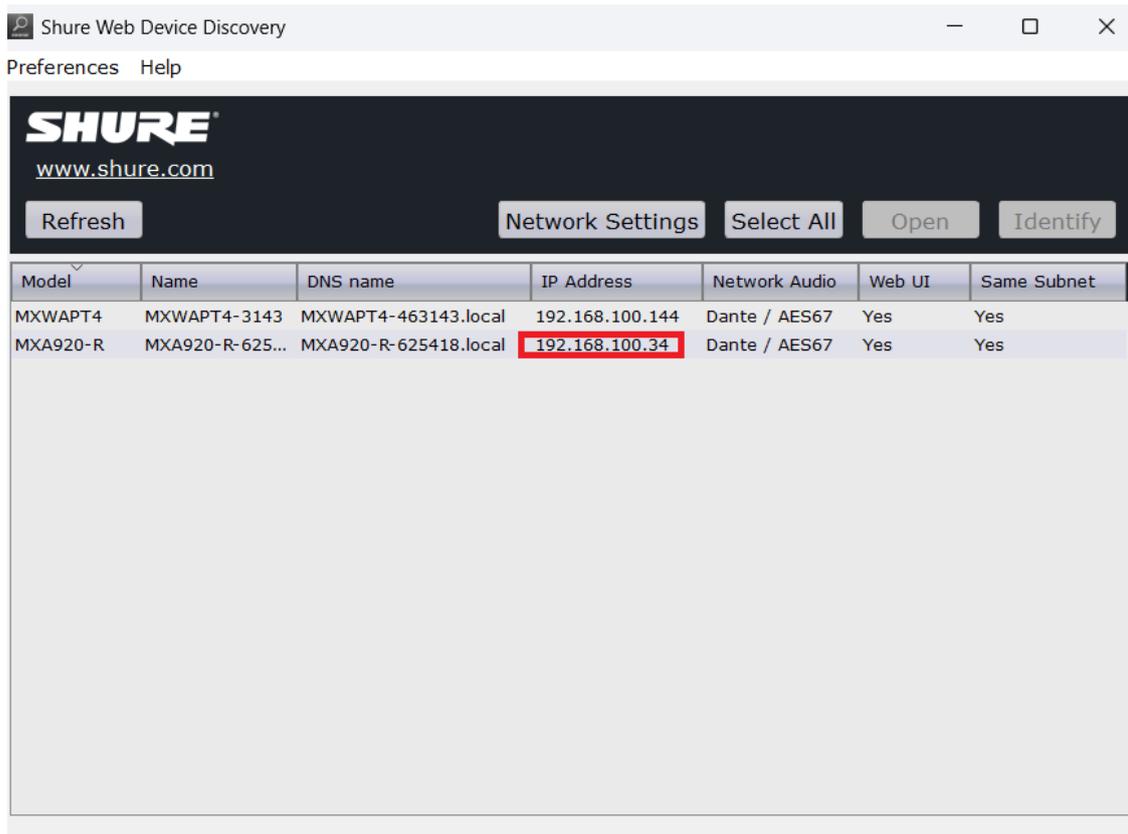
Network Connections: Install the Shure MXA 910/920, VoiceTRX100 processor, PTZ cameras and video switcher in the same local area network.

Installation Location: Decide on the installation location for the Shure MXA 910/920. Choose a location that captures the participants' voices while considering the camera's field of view.

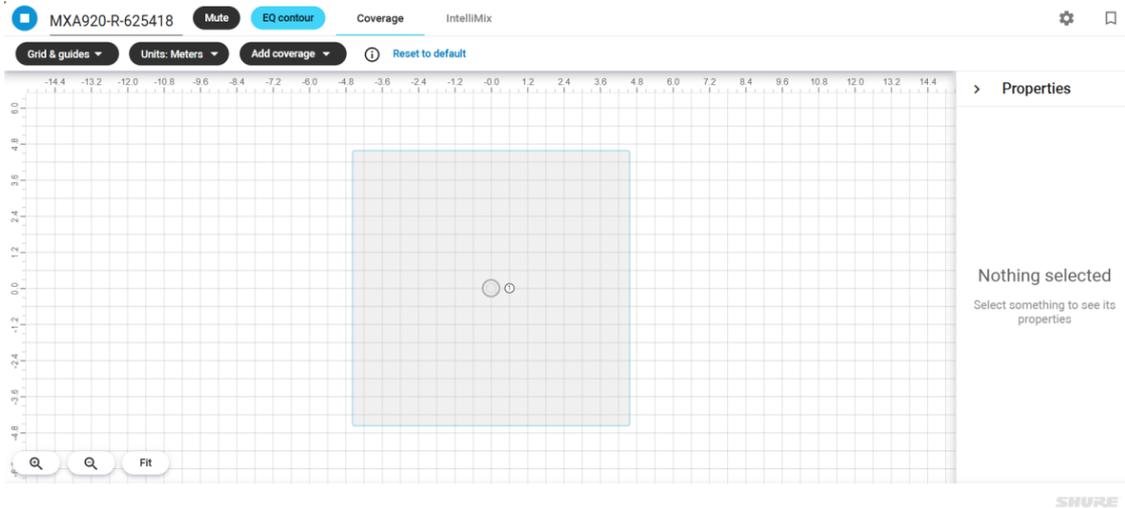
Firmware Updates: Ensure that the Shure MXA 910/920 and all Datavideo equipment is updated to the latest version before configuration.

Discover the microphone and access the configuration UI

1. Download and install "Shure Web Device Discovery" software [Device Discovery - Shure Web Device Discovery Application - Shure USA](#).
2. Open the software and note the IP address of the Shure MXA 910/920.

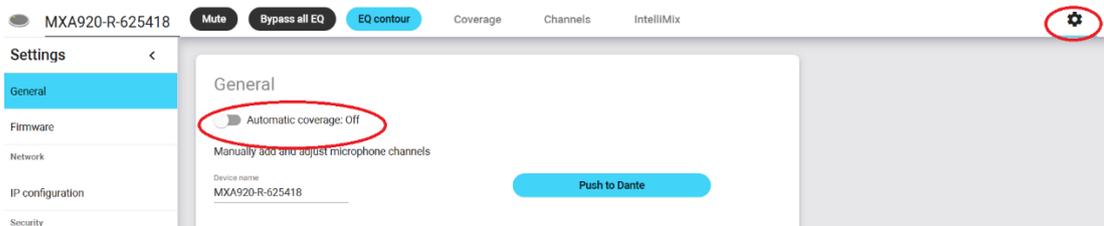


3. Type the IP address into your web browser to access the web interface of the Shure MXA 920.

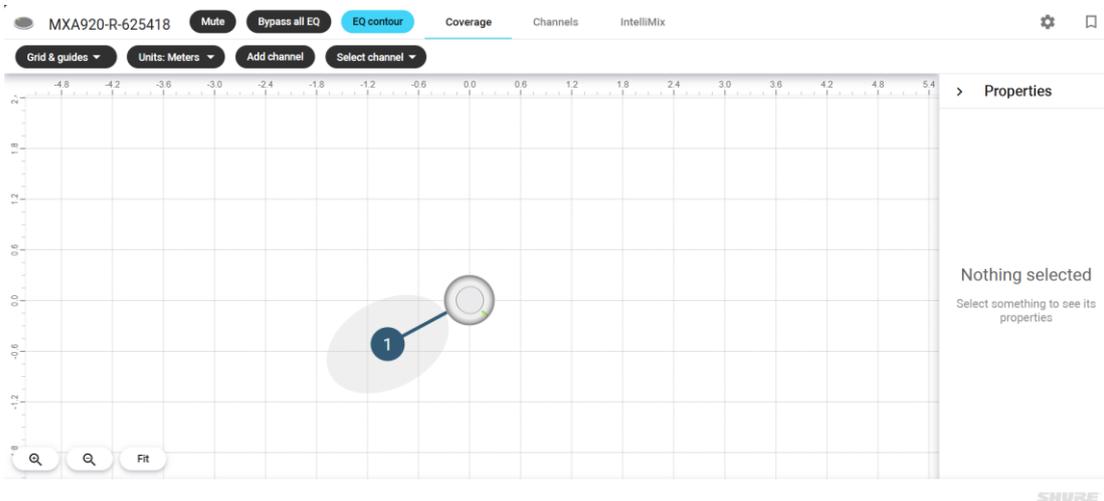


Coverage

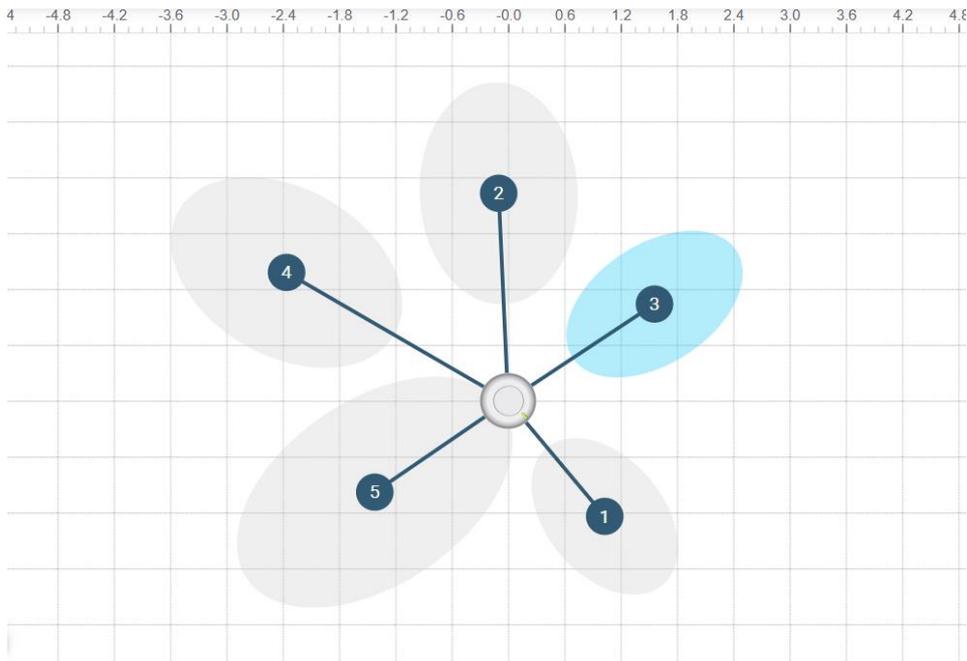
1. If you are using the Shure MXA 920 'Automatic Coverage' should be turned off.



2. Remove any existing channels, leaving only channel 1.



3. Add as many actionable channels as required (maximum 8).



Auto Positioning

1. You will need to find someone to speak in each position.
2. Select channel X, then press the 'Auto position' button.
3. Press the 'Listen' button in the auto position window.

Auto position
✕

Device name
MXA920-R-625418

Active channel
Channel 3 ▼

Status
Ready

-60 -48 -36 -24 -12 0
dBFS

Talker height (m)
1.22

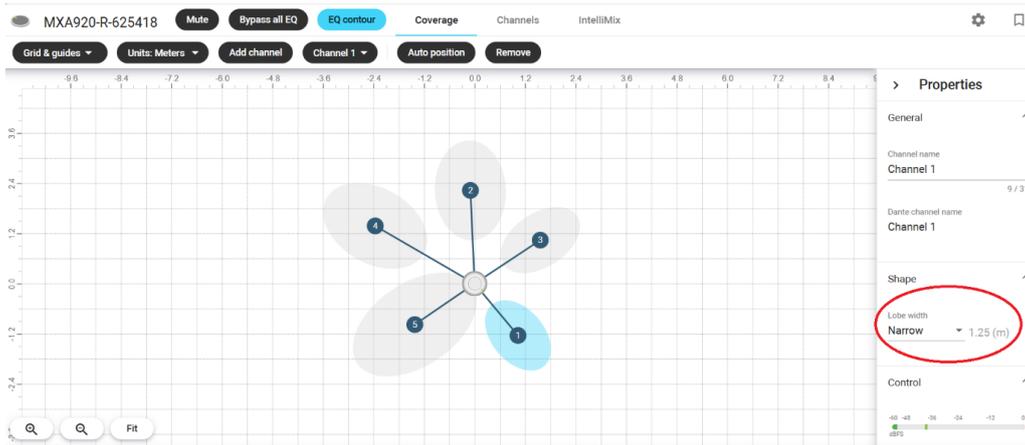
Cannot exceed device height: 2 (m)

Listen

4. The position of channel X will be adjusted automatically.

Lobe width

Set the lobe width of each channel as "Narrow" or "Medium". This will reduce the area covered by each lobe and increase the accuracy of voice tracking.



IntelliMix

Navigate to go to the 'IntelliMix' tab. The settings below will affect the audio tracking of VoiceTRX-100.

Priority

If we enable 'Priority' on channel 1 and both channel 1 and channel 2 are talking, the signal of Channel 1 will get priority. For example, if the main speaker is in the position of channel 1, channel 1 can be set with higher priority.

1	2	3	4	5	Automix
Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Automix Out
Send to mix ● On					
Gain 0 dB	Gain 0 dB				
AGC	AGC	AGC	AGC	AGC	AEC
Solo	Solo	Solo	Solo	Solo	NR
Priority	Priority	Priority	Priority	Priority	PEQ
Always on	Comp				
Mute	Mute	Mute	Mute	Mute	Delay
					Mute

Always on

It is not recommended to leave a channel always on when using voice tracking.

Leave last mic on

If this feature is enabled, the last active mic will remain active and prevent the VoiceTRX-100 from activating the 'Home' zone even if the room is silent.

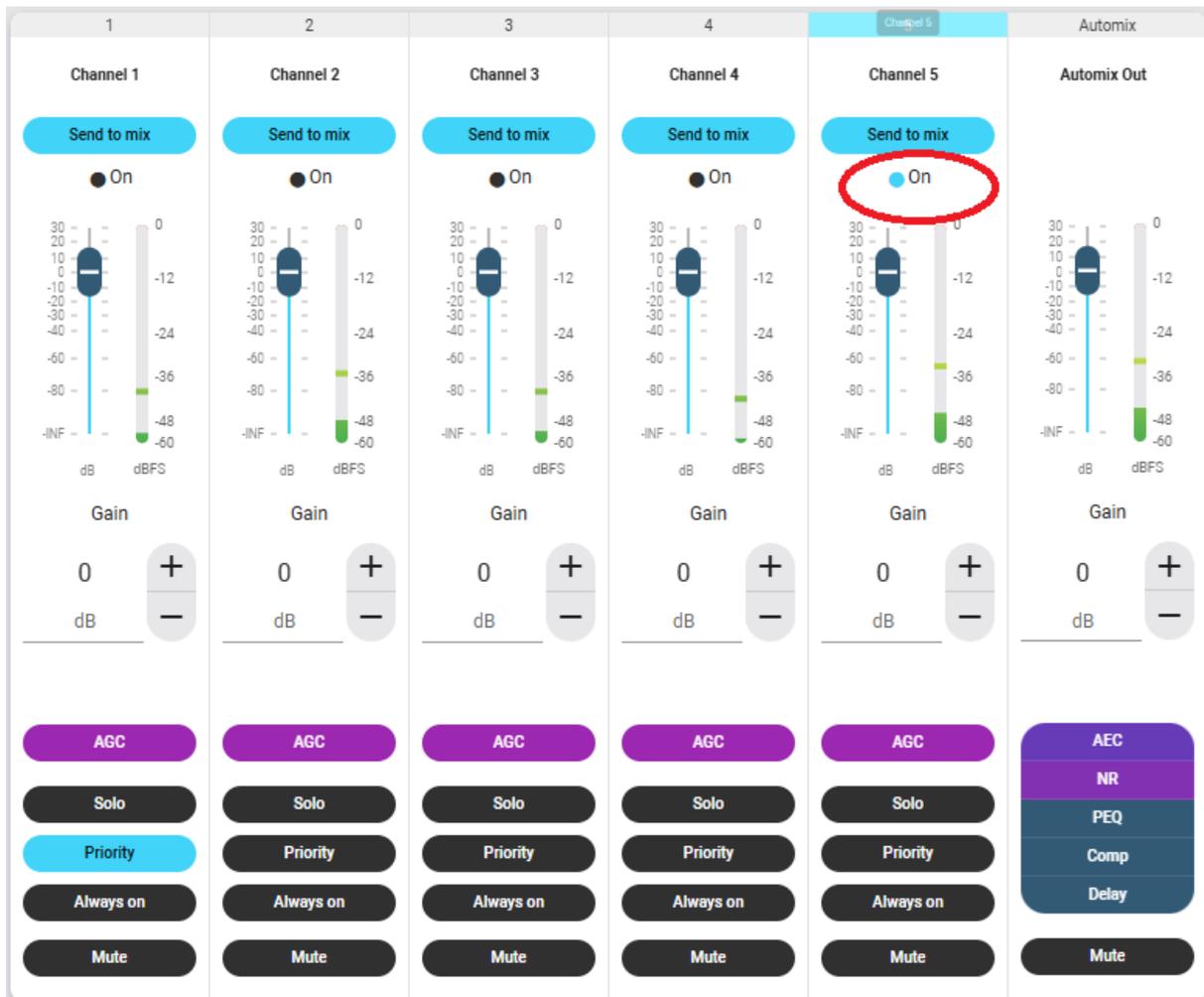
Gating Sensitivity

Changes the threshold of the level at which the gate is opened and VoiceTRX-100 will trigger the associated zone. The higher the number, the more sensitive the trigger will be, and the chance of a zone switch will be increased.

The screenshot shows a settings menu for the VoiceTRX-100. The 'Settings' menu is expanded to show 'Automix mode' set to 'Gating'. Below this, there are several settings: 'Automix gain meter' is unchecked; 'Maximum open channels' is set to 8; 'Leave last mic on' is unchecked; 'Off attenuation (dB)' is set to -20; 'Hold time (ms)' is set to 400; and 'Gating sensitivity' is a slider set to 5, ranging from 1 (Low) to 9 (High).

Channel Testing

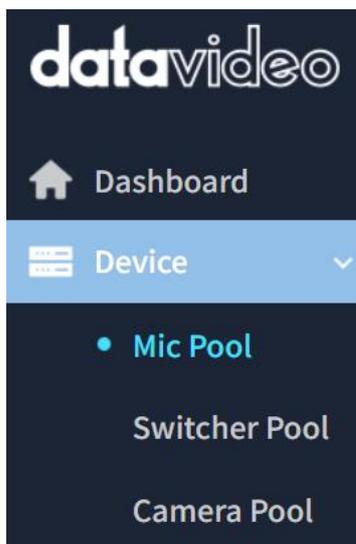
On the IntelliMix tab, you can check if the correct channel is activated when someone speaks in that position. The VoiceTRX-100 maps channels 1-8 to zones 1-8, it relies on the correct channel being activated.



VoiceTRX100 Configuration

Connecting the Shure MXA 910/920 microphone

1. Click the 'Device Menu' and then 'Mic Pool'



2. Click the 'Add Manually' button under the 'Mic Pool' heading.

3. Select 'Shure MXA-910/920 (Lobe Gating)' from the dropdown menu, enter a friendly name and the IP address of the Shure MXA 910/920 microphone.

Add Manually ×

Select Module Shure MXA 910/920 (Lobe Gating) ▼

Friendly Name Test 910

Device IP 192.168.100.222 ×

Add

4. Click the 'Add' button.
5. You will see the microphone listed as below, click the 'Edit' icon to access the module settings.

Mic Pool Add Manually			
No.	Name	Status	IP
7	Sennheiser TCC-2 Microphone(Test TCC2)	-	192.168.100.231
8	Shure MXA 910/920 (Lobe Gating)(Test 910)	-	192.168.100.222

Showing 7 to 12 of 8 entries Previous 1 2 Next

The following module options are available:

Device IP: IP address of the MXA 910/920 microphone.

Port: Must match the port number set of the microphone, the default is 22022.

Far end Trigger dB: A zone change will only be triggered if this level is exceeded. The range is -90 to 0 (Default -45).

Far end detection: Enable or disable far end detection.

Zone Configuration

Zones 1-8 on the VoiceTRX-100 are automatically mapped to lobes 1-8 on the Shure MXA 910/920.

Shure MXW

Supported receivers

The following receivers are supported:

- MXWAPT2
- MXWAPT4
- MXWAPT8

Preparation

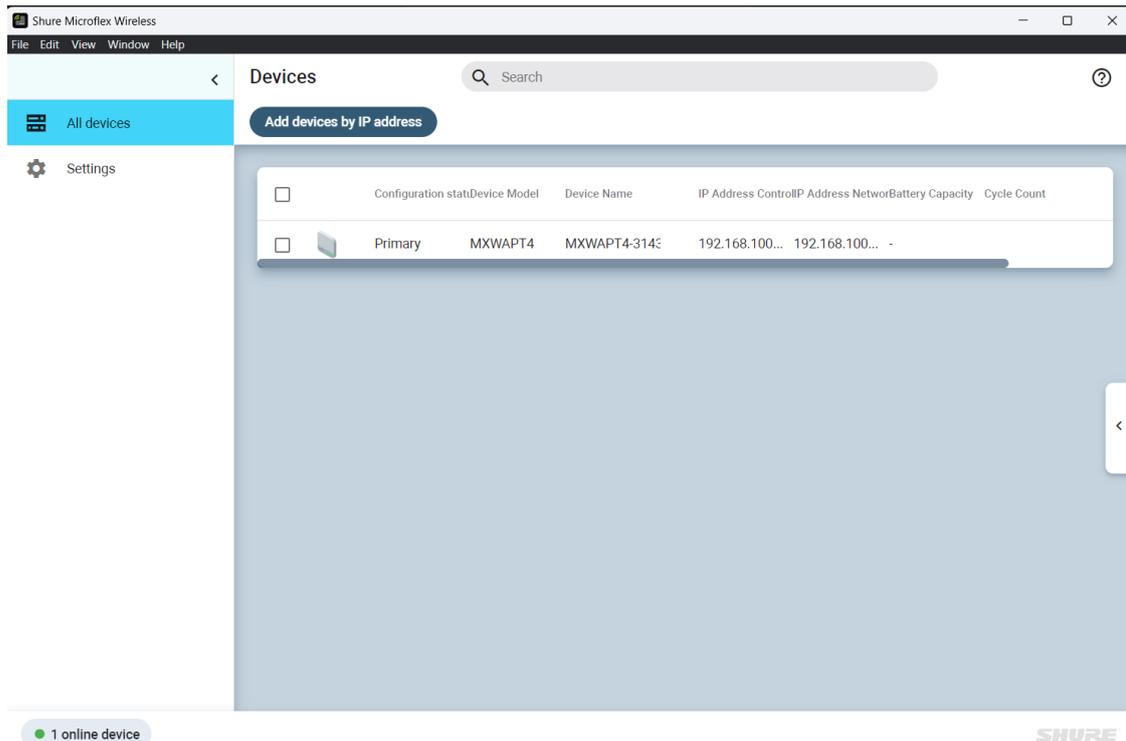
Initial configuration: A router or managed switch with a DHCP server function will be required to set the Network settings.

Network Connections: Install the Shure MXW receiver, VoiceTRX100 processor, PTZ cameras and video switcher in the same local area network.

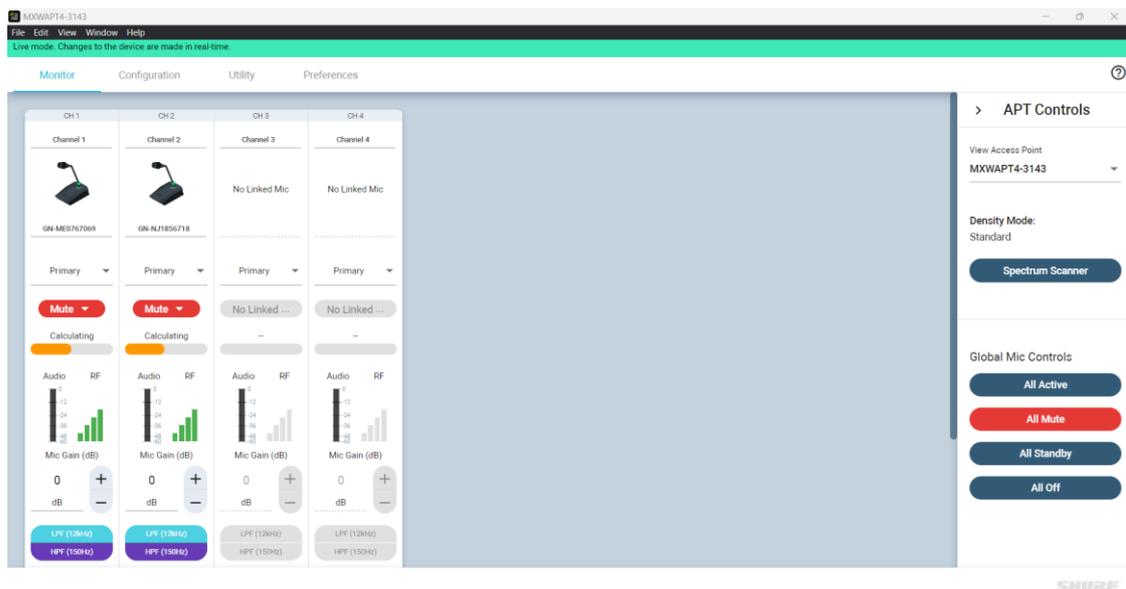
Firmware Updates: Ensure that the Shure MXW and all Datavideo equipment is updated to the latest version before configuration.

Discover the receiver and access the configuration UI

1. Download and install “Shure Microflex Wireless” [Microflex Wireless Software - Software Application - Shure United Kingdom](#).
2. Open the software, the MXW receiver should be listed.



3. Double click the receiver to access the settings, the default password is 'admin'.



Switch behaviour

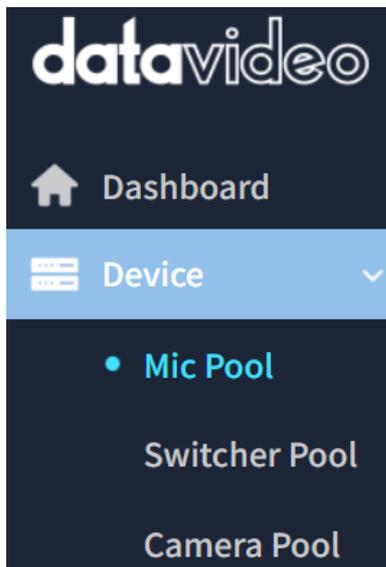
1. Click the 'Preferences' tab.
2. Select the desired switch behaviour:
 - Push-to-Talk – The switch must be held down to unmute the microphone.
 - Toggle – The microphone will be muted and unmuted with each button press.
 - Push-to-Mute – The switch must be held down to mute the microphone.

Transmitter Type	Switch Behavior	Initial State From Charger	Active/Mute LED Behavior
Gooseneck	Push-to-Talk	Active	Solid Green / Solid Red
Boundary	Toggle	Active	Solid Green / Solid Red
Bodypack	Toggle	Active	Solid Green / Solid Red
Handheld	Toggle	Active	Solid Green / Solid Red

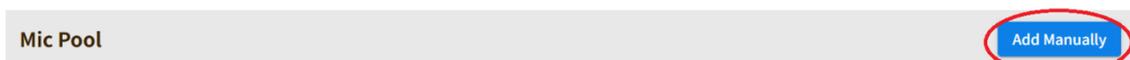
VoiceTRX100 Configuration

Connecting the Shure MXW receiver

1. Click the 'Device Menu' and then 'Mic Pool'



2. Click the 'Add Manually' button under the 'Mic Pool' heading.



3. Select 'Shure MXW' from the dropdown menu, enter a friendly name and the IP address of the Shure MXW receiver.

Add Manually ×

Select Module Shure MXW ▾

Friendly Name Test MXW

Device IP 192.168.100.199 ×

Add

4. Click the 'Add' button.
5. You will see the microphone listed as below, click the 'Edit' icon to access the module settings.

Mic Pool Add Manually			
No.	Name	Status	IP
1	Shure MXW(MXW)	-	192.168.100.144
2	Shure MXA 920(Automatic Coverage)(New 920)	-	192.168.100.43
3	Shure MXW(Test MXW)	-	192.168.100.199

Showing 1 to 6 of 3 entries Previous **1** Next

The following module options are available:

Device IP: IP address of the MXW receiver.

Port: Must match the port number set of the receiver, the default is 2202.

Logic Trigger Field: Select if zone changes should be triggered by the microphones mute state or audio level.

Mic Trigger level: This setting is only valid when the trigger is set to audio level. A zone change will only be triggered if this level is exceeded. The range is -90 to 0 (Default -45).

Zone Configuration

Zones 1-8 on the VoiceTRX-100 are automatically mapped to microphones 1-8 on the MXW receiver.

If more than one microphone is active, the 'Home Zone' (-1) will be triggered

Shure MXCW

Preparation

Initial configuration: A router or managed switch with a DHCP server function will be required to set the Network settings.

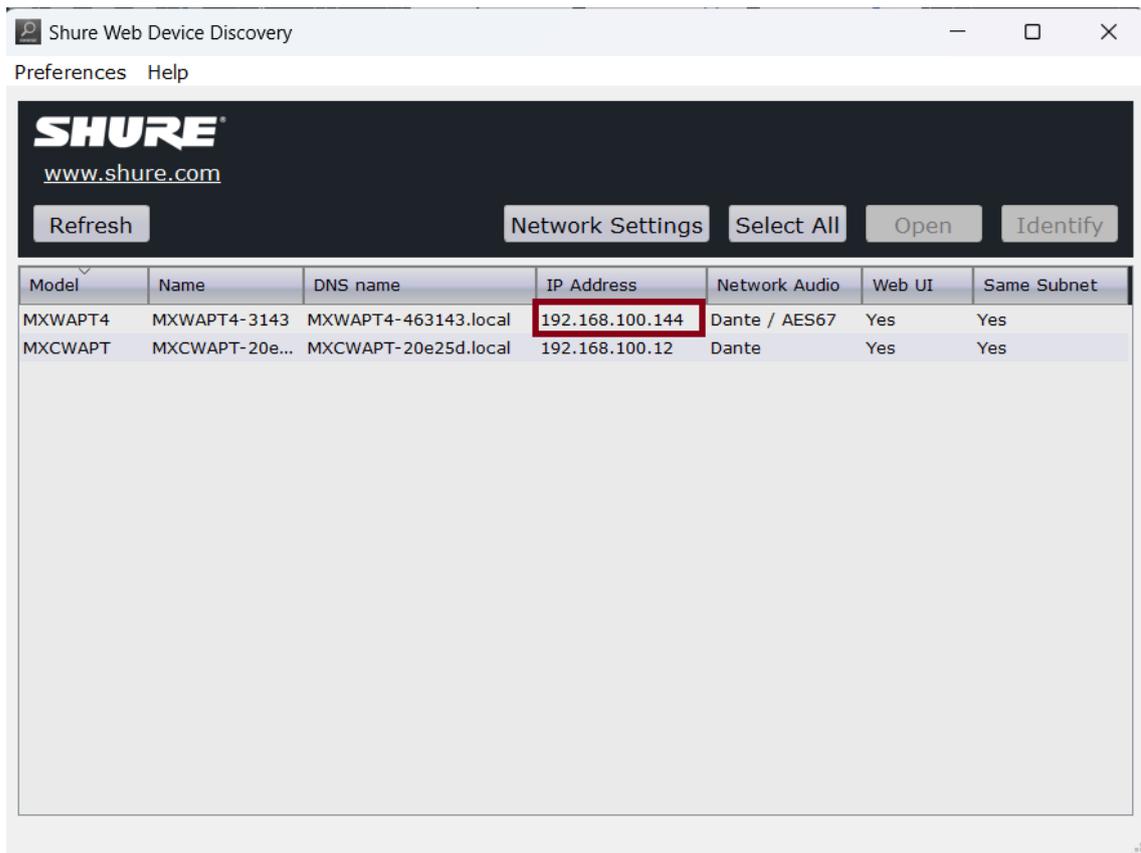
Network Connections: Install the Shure MXCW receiver, VoiceTRX100 processor, PTZ cameras and video switcher in the same local area network.

Firmware Updates: Ensure that the Shure MXCW and all Datavideo equipment is updated to the latest version before configuration.

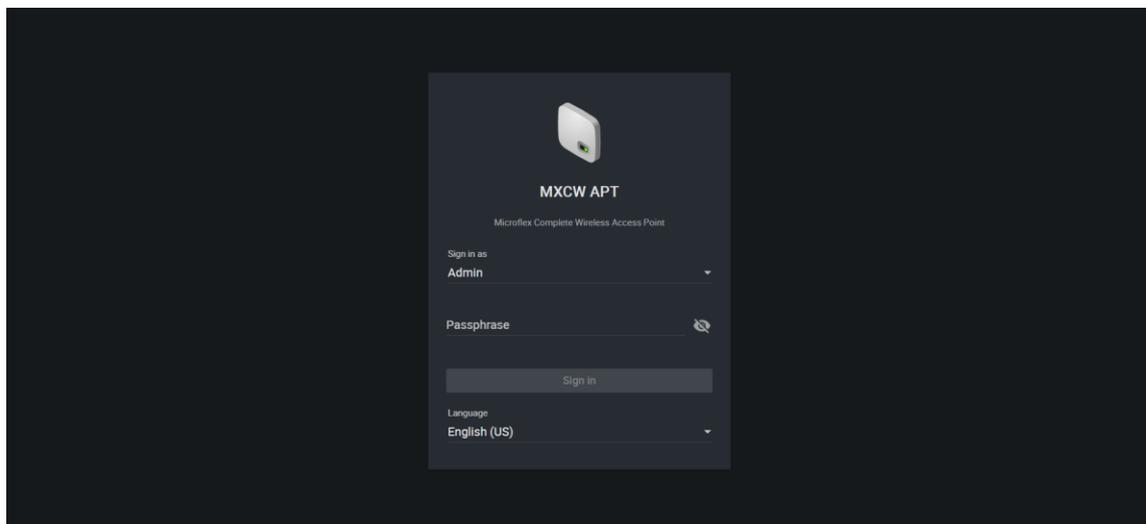
Discover the receiver and access the configuration UI

1. Download and install "Shure Web Device Discovery" software [Device Discovery - Shure Web Device Discovery Application - Shure USA](#).

2. Open the software and note the IP address of the Shure MXCW receiver.



3. Type the IP address into your web browser to access the web interface of the Shure MXCW receiver.



Meeting Controls

The MXCW system allows up to 8 active speakers. Once the speaker list is full, participants must wait until their turn to speak. If they attempt to speak before their turn, their microphone LED ring flashes momentarily and then turns off as a reminder.

There are several meeting controls that will affect the way the VoiceTRX100 system behaves.

To configure the meeting controls:

1. Click the 'Meeting Controls' tab.
2. Set the speak mode and number of active speakers and active speakers as required:
 - Speak mode – The speak mode determines the way the participants use their microphones in a group setting.

MODE	DESCRIPTION	HOW IT WORKS
Automatic (default)	Press to speak 	Speak button turns on participant microphone. There is no request queue: when the speaker list is full, the mic does not turn on.
FIFO (First in, first out)	Automatic request queue 	Speak button adds participant to a queue system. The next microphone in queue turns on automatically once a space is open in the speaker list. Once the speaker list is full, participants are placed into a chronological request queue.
Manual	Managed request queue 	Speak button adds the participant to a request queue that is managed by the chairperson or operator.
Handsfree	Speak into microphone 	Microphone turns on automatically when chairperson or delegate speaks. See Handsfree Mode for more information.

- Maximum number of active speakers – This setting limits how many speakers can be active at once (including chairpersons).
 - Maximum number of delegate speakers – This setting limits how many delegate speakers can be active at once, this setting does not limit chairpersons.
 - Maximum Requests: Total number of participants that can be in the request queue. This is only available in Manual and FIFO mode.
3. Click the 'Advanced' tab on the left of the screen.
 4. Set the active speaker interruption as required:
 - Not allowed
 - Higher speak priority allowed (default)
 - Equal or higher speak priority allowed

Please consult the 'Speak Priority' section of the Shure MXCW manual for more information on adjusting individual participants' priority.

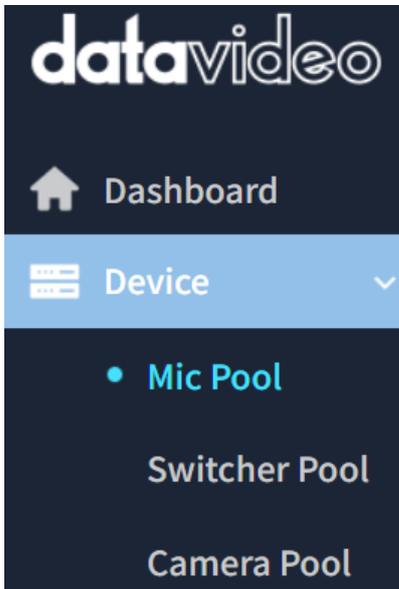
Best Practices

When using First In, First Out (FIFO) mode, set the maximum number of speakers to 1 so the participants must wait to speak until another has finished.

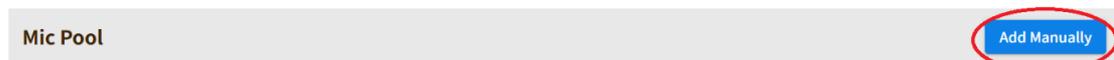
VoiceTRX100 Configuration

Connecting the Shure MXCW receiver

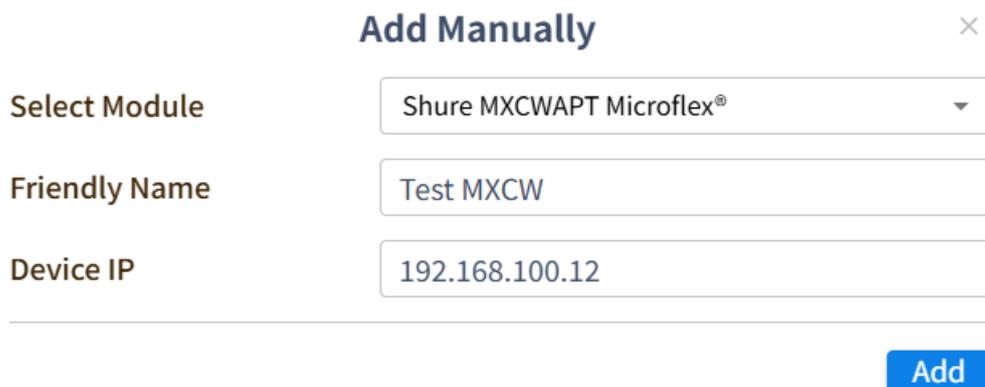
1. Click the 'Device Menu' and then 'Mic Pool'



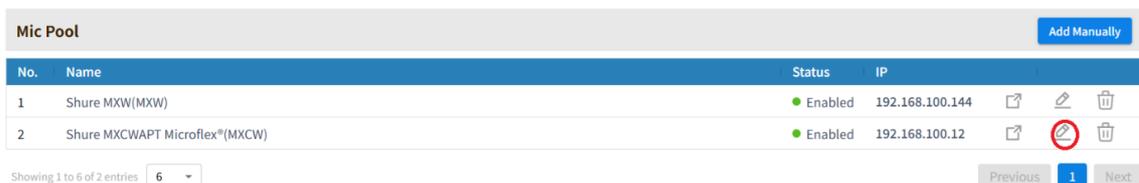
2. Click the 'Add Manually' button under the 'Mic Pool' heading.



3. Select 'Shure MXCWAPT Microflex' from the dropdown menu, enter a friendly name and the IP address of the Shure MXCW receiver.

A screenshot of the 'Add Manually' form. The title 'Add Manually' is at the top with a close button. Below are three input fields: 'Select Module' with a dropdown menu showing 'Shure MXCWAPT Microflex®', 'Friendly Name' with the text 'Test MXCW', and 'Device IP' with the text '192.168.100.12'. An 'Add' button is at the bottom right.

4. Click the 'Add' button.
5. You will see the microphone listed as below, click the 'Edit' icon to access the module settings.



Mic Pool				Add Manually		
No.	Name	Status	IP			
1	Shure MXW(MXW)	Enabled	192.168.100.144			
2	Shure MXCWAPT Microflex®(MXCW)	Enabled	192.168.100.12			

Showing 1 to 6 of 2 entries 6 Previous 1 Next

The following module options are available:

Device IP: IP address of the MXW receiver.

Port: Must match the port number set of the receiver, the default is 2202.

Zone Configuration

Zones 1-125 on the VoiceTRX-100 are automatically mapped to microphones 1-125 on the MXCW receiver.

If more than one microphone is active, the 'Home Zone' (-1) will be triggered, unless the chairperson is active, in that case the chairperson will take priority.

If more than one chairperson is active, the 'Home Zone' (-1) will be triggered.

Sennheiser Speech line

Supported receivers

All SL MCR DW receivers are supported.

Preparation

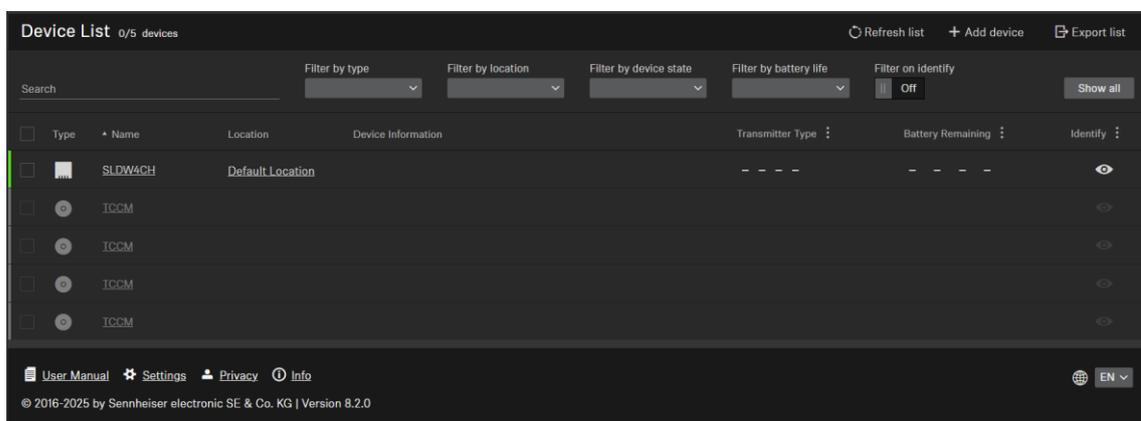
Initial configuration: A router or managed switch with a DHCP server function will be required to set the Network settings.

Network Connections: Install the Sennhesier SLDW receiver, VoiceTRX100 processor, PTZ cameras and video switcher in the same local area network.

Firmware Updates: Ensure that the Sennheiser SLDW receiver and all Datavideo equipment is updated to the latest version before configuration.

Discover the receiver and access the configuration UI

1. Download and install the Sennheiser 'Control Cockpit' software
<https://www.sennheiser.com/en-us/catalog/applications/assistive-listening-and-audience-engagement/control-cockpit/control-cockpit-111111>
2. Open 'Control Cockpit' and navigate to the 'Devices Tab'
3. If the SLDW receiver is not listed, you can add it manually using its IP address

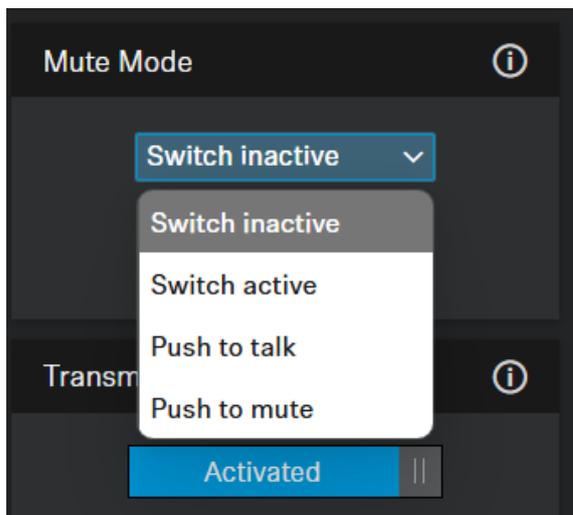


4. Click the SLDW receiver name to access its settings

Switch behaviour

The 'Mute mode' is set per microphone.

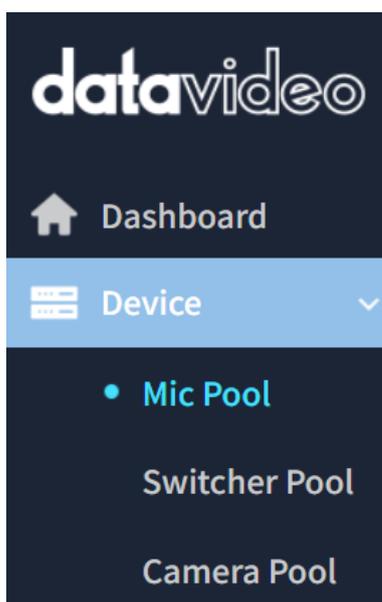
1. Select the microphone in the Sennheiser Control Cockpit
2. Select the desired mute mode:
 - Switch inactive – The microphone will always be unmuted
 - Switch active – The microphone will be muted and unmuted with each button press.
 - Push-to-talk – The switch must be held down to unmute the microphone.
 - Push-to-Mute – The switch must be held down to mute the microphone.



VoiceTRX100 Configuration

Connecting the Sennheiser SLDW receiver

1. Click the 'Device Menu' and then 'Mic Pool'



- Click the 'Add Manually' button under the 'Mic Pool' heading.



- Select 'Sennheiser Speechline' from the dropdown menu, enter a friendly name and the IP address of the SLDW receiver.

 A screenshot of a dialog box titled "Add Manually" with a close button (X) in the top right corner. It contains three input fields:

- "Select Module" with a dropdown menu showing "Sennheiser Speechline".
- "Friendly Name" with a text input field containing "Test SLDW".
- "Device IP" with a text input field containing "192.168.100.33".

 At the bottom right of the dialog is a blue button labeled "Add".

- Click the 'Add' button.
- You will see the microphone listed as below, click the 'Edit' icon to access the module settings.

 A screenshot of a table titled "Mic Pool" with an "Add Manually" button in the top right. The table has columns for "No.", "Name", "Status", and "IP".

No.	Name	Status	IP			
1	Shure MXCWAPT Microflex®(MXCW)	Enabled	192.168.100.36			
2	Sennheiser Speechline(Test SLDW)	Enabled	192.168.100.33			

 Below the table, it says "Showing 1 to 6 of 2 entries" with a dropdown menu set to "6". At the bottom right are "Previous", "1", and "Next" buttons.

The following module options are available:

Device IP: IP address of the MXW receiver.

Port: Must match the port number set of the receiver, the default is 2202.

Logic Trigger Field: Select if zone changes should be triggered by the microphones mute state or audio level.

Mic Trigger level: This setting is only valid when the trigger is set to audio level. A zone change will only be triggered if this level is exceeded. The range is -90 to 0 (Default -45).

Zone Configuration

Zones 1-4 on the VoiceTRX-100 are automatically mapped to microphones 1-4 on the SLDW receiver.

If more than one microphone is active, the 'Home Zone' (-1) will be triggered

Switcher Modules

Datavideo iCast-10NDI

Preparation

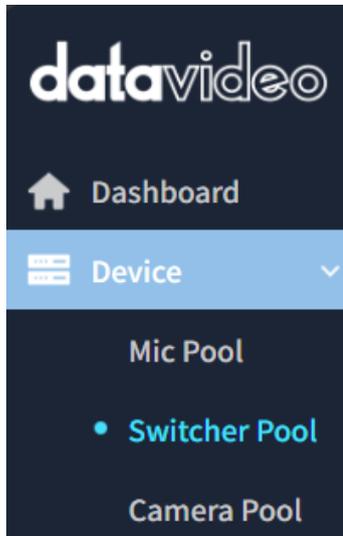
Network Connections: Ensure the VoiceTRX100 processor and iCast-10NDI are in the same local area network.

Firmware Updates: Ensure that Datavideo equipment is updated to the latest version before configuration.

VoiceTRX100 Configuration

Connecting a Datavideo iCast-10NDI

1. Click the 'Device Menu' and then Switcher Pool'



2. Click the 'DVIP Scan' button under the 'Switcher Pool' heading.



3. Select the iCast-10NDI from the list and click the 'Add' button.



4. You will see the switcher listed as below, click the 'Edit' icon to access the module settings.



5. Enter the username and password of the iCast-10 in the module settings and click the 'Save' button. The default values are User: admin Password: 000000.

Device > Switcher Pool > iCast-10 Switcher (iCast) > Edit Device

General Fields **ON**

Device IP:

Username:

Password:

Switch Delay(ms):

The following module options are available:

Device IP: IP address of the iCast-10NDI

Username: Username of the iCast-10 NDI

Password: Password of the iCast-10NDI

Optimising the timeout period

By default, the icast-10 requires that the VoiceTRX-100 re-authenticate every 20 minutes, this can cause the system to perform slowly. To change this setting:

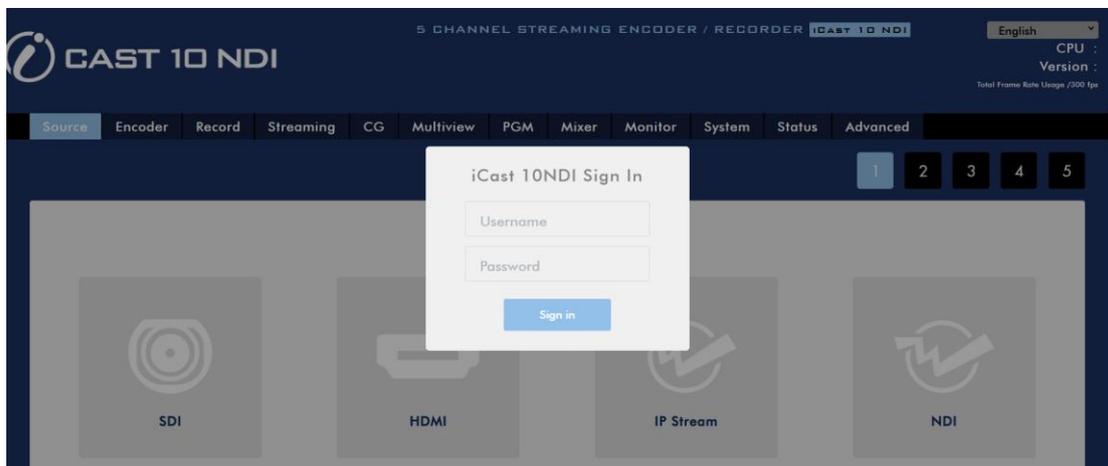
1. Click the button shows below to access the iCast-10 WebUI.

Switcher Pool

No.	Name	Status	IP	
1	iCast-10 Switcher(iCast)	Enabled	192.168.100.31	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
2	KMU-100 4K Multicamera Processor(KMU)	Enabled		<input type="button" value="Edit"/> <input type="button" value="Delete"/>

Showing 1 to 6 of 2 entries

2. Login, the default values are User: admin Password: 000000.



3. Click the 'System' tab, scroll down and change the 'Timeout Period' to 'Never';

Other Option

Timeout Period:

4. Click 'Apply', you will be automatically logged out once the setting is applied.

Datavideo KMU-100+

Preparation

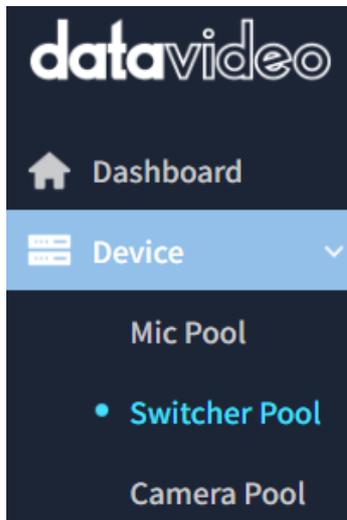
Physical Connections: Connect the VoiceTRX100 processor to the KMU-100 with the supplied RJ45 to D9 RS422 cable.

Firmware Updates: the KMU-100 has the latest KMU100+ firmware installed before configuration. The KMU-100+ firmware can be downloaded here [KMU-100 4K Multicamera Processor | Datavideo | Datavideo | Professional end-to-end solutions provider for your live video production.](#)

VoiceTRX100 Configuration

Connecting a Datavideo KMU-100+

1. Click the 'Device Menu' and then Switcher Pool'



2. Select 'KMU-100 4K Multicamera Processor' from the dropdown menu, enter a friendly name and select the RS422 port.

Add Manually

Select Module: KMU-100 4K Multicamera Processor

Friendly Name: KMU-100

Select Serial Port: Onboard RS422 Port 1

Add

3. Click the 'Add' button.
4. You will see the switchers listed as below, click the 'Edit' icon to access the module settings.

No.	Name	Status	IP			
1	KMU-100 4K Multicamera Processor(KMU)	Enabled				
2	iCast-10 Switcher(iCast-10)	Enabled	192.168.100.31			

Showing 1 to 6 of 2 entries

Previous 1 Next

The following module options are available:

Select Serial Port: Select the RS422 serial port to which the KMU-100 is connected.

[Datavideo SE-2600/3200/4000 series](#)

Preparation

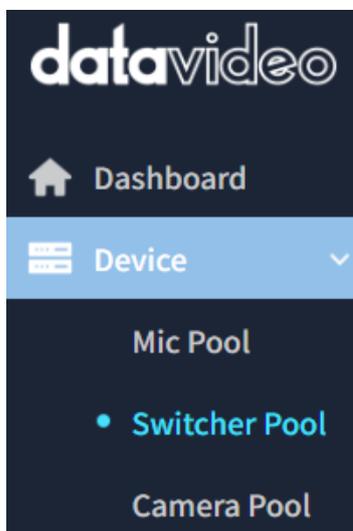
Network Connections: Ensure the VoiceTRX100 processor and SE series switcher are in the same local area network.

Firmware Updates: Ensure that Datavideo equipment is updated to the latest version before configuration.

VoiceTRX100 Configuration

Connecting a Datavideo SE series switcher

1. Click the 'Device Menu' and then Switcher Pool'



2. Click the 'DVIP Scan' button under the 'Switcher Pool' heading.



3. Select the SE series switcher from the list and click the 'Add' button.

Scan List ×

	No.	Name	IP	MAC
<input checked="" type="checkbox"/>	1	SE-2600 (SE-2600_53)	192.168.100.53	00:07:36:04:3...

Showing 1 to 6 of 1 entries

Previous 1 Next

Add

4. You will see the switcher listed as below, click the 'Edit' icon to access the module settings.

Switcher Pool				DVIP Scan	Add Manually
No.	Name	Status	IP		
1	SE-2600/3200/4000 Series(2600)	Enabled	192.168.100.30		

Showing 1 to 6 of 1 entries 6 Previous 1 Next

5. Enter the username and password of the iCast-10 in the module settings and click the 'Save' button. The default values are User: admin Password: 000000.

The following module options are available:

Device IP: IP address of the SE series switcher

Camera Modules

Datavideo PTC Series

Preparation

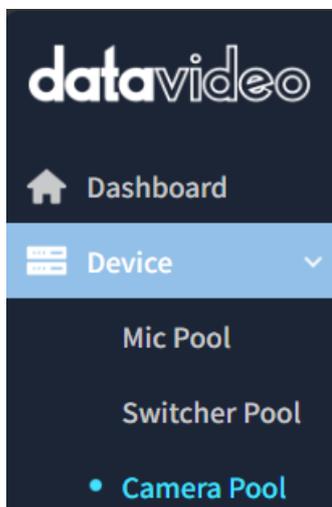
Network Connections: Ensure the VoiceTRX100 processor and PTZ cameras are in the same local area network.

Firmware Updates: Ensure that Datavideo equipment is updated to the latest version before configuration.

VoiceTRX100 Configuration

Connecting a Datavideo PTC series camera

1. Click the 'Device Menu' and then 'Camera Pool'



2. Click the 'DVIP Scan' button under the 'Camera Pool' heading.



3. Select the camera from the list and click the 'Add' button.
4. You will see the camera listed as below, click the 'Edit' icon to access the module settings.

Camera Pool				Add Manually		
No.	Name	Status	IP			
1	DVIP PTZ Camera(PTC-140-2)	-	192.168.100.34			
2	DVIP PTZ Camera(PTC-140)	-	192.168.100.49			

Showing 1 to 6 of 2 entries 6 Previous 1 Next

The following module options are available:

Device IP: IP address of the PTC series camera.

RTSP Stream path: Required for the live video preview to be displayed on the VoiceTRX-100 processor, select your camera series.

Actions

Simple Mode

Simple mode is designed to facilitate fast and easy setup for common applications. When simple mode is used, Advanced Mode logic is also generated, this means that you could use Simple Mode to create a base configuration and switch to Advanced Mode to customise it.

For detailed instructions on how to use simple mode, please see the online training course on the Datavideo Academy www.datavideoacademy.com.

Advanced Mode

Advanced Mode allows for the creation of custom logic using IF, AND, OR and ELSE IF statements. Logic is run every time a microphone zone changes.

Please Note: Advanced mode is primarily intended for certified Datavideo personnel, the creation of advanced logic is outside the scope of Datavideo standard support obligations.

Network

DHCP: Turn DHCP client mode ON and OFF, this must be turned off in order to set a static IP address.

IP Address: Displays the current IP address in both DHCP ON and DHCP OFF modes. When DHCP is OFF this field is editable, you can enter the static IP address of your choice.

Network Mask: In CIDR format, for example a mask of 255.255.255.0 should be entered as 24 (24 bit mask).

Gateway: The IP address of your internet gateway, usually your router.

Primary DNS: Primary DNS (Domain Name) server.

Secondary DNS: Secondary DNS (Domain Name) server.

Mac Address: Displays the units unique MAC (hardware address).

VOICETRX100 VOICE TRACKING CONTROL INTERFACE

Network

DHCP OFF

IP Address

Network Mask

Gateway

Primary DNS

Secondary DNS

MAC Address 00:07:36:0c:a4:00

Please Note: The VoiceTRX-100 must have a valid gateway and DNS servers to check for firmware updates.

System

Device Name: Customise the devices hostname, this is used for DVIP discovery.

Version: Displays the devices current firmware version. If the device has access to the internet, it will check for update every 10 minutes and display a message should an update be available.

Please Note: The VoiceTRX-100 must have a valid gateway and DNS servers to check for firmware updates.

HDMI Output 1 & HDMI Output 2

Resolution: Set the HDMI ports output resolution and framerate

Content: Currently only the option to display the configuration UI is available.

Trigger Period (ms): The amount of time in milliseconds that a microphone or microphone position must be active before a zone change is triggered. A camera preset recall will only commence on zone change.

Switch delay (ms): The amount of time in milliseconds between a camera being in position and the connected switcher switching to that camera's input. A small switch delay can be useful to allow the camera's autofocus to settle. A larger switch delay can be used with the 'Home First' switch mode, this allows a lower Trigger Period to be used to avoid delaying camera movements while still avoid excessive switching or false triggers. Switch delay is currently supported by the iCast-10NDI switcher only.

Home Period (ms): The amount of time in milliseconds before the home zone is triggered after no other zones are active (the room is quiet).

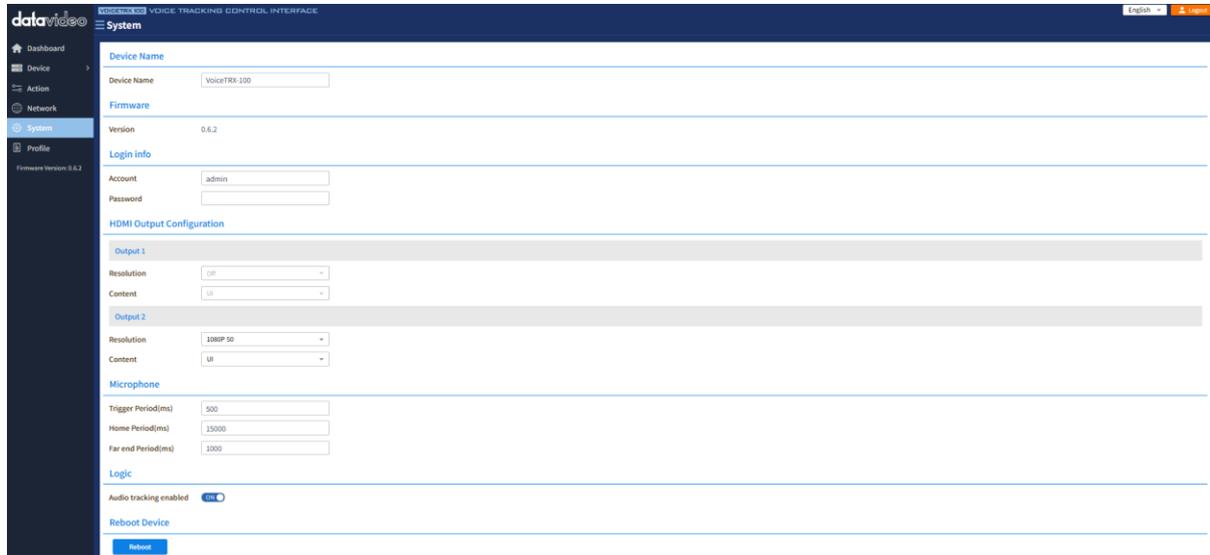
Microphone Priority: Select the priority microphone when more than one microphone module is in use.

Far end period (ms): The amount of time in milliseconds before the home zone is triggered when the far end is active. Available for microphones that support far end detection only.

Far end trigger (dB): Please see the 'Far end detection' section of this guide for more information.

Audio tracking enabled: Enable or disable 'Actions' being executed on zone change.

Preset Abort: When enabled, connected Datavideo PTZ cameras will be allowed to abort (cancel) a preset recall request if a zone change occurs during preset recall, this allows the system to be more responsive to zones change. This option is enabled by default and should only be disabled when advised by support personnel for troubleshooting purposes.



Microphone Priority

Microphone priority must be enabled if you are using more than once microphone or receiver to control the same switcher and cameras. Microphone priority mode avoids multiple microphones attempting to execute actions at the same time.

If more than one microphone is active at the same time, the home zone (-1) on the priority microphone will be triggered. Home zone actions should only be configured for the priority microphone.

Configuration

1. The priority microphone can be selected from the 'System' page
2. Home zone actions only need to be configured for priority microphone.
3. Adjust the 'Home Period' 'Trigger Period' and 'Switch delay' as required, please see the best practices section below.

Behaviour and best Practices

- When using ceiling microphones, the zones should be setup to avoid overlap wherever possible. Overlap is when there is a position that triggers zones on more than one microphone. Exclusion zones or restricted coverage areas can be used to prevent overlap (microphone dependant).
- When priority mode is enabled, a microphone is considered active if it's not on the 'Home Zone' (-1).
- If more than one microphone is active, the 'Home Zone' actions are triggered on the master microphone only.
- When priority mode is enabled, the 'Home Zone' actions of the master microphone are only triggered when all microphones are inactive (on zone -1).

Far End Detection

Far end detection allows the VoiceTRX100 to detect when the far end of a conference call is active and trigger actions accordingly, a typical use case would be to force the room to the 'Home Zone' (wide shot) when the far end has been active for a certain period.

The VoiceTRX100 supports far end detection via supported microphones or universally using a support DANTE input adapter.

Far end detection via the microphones AEC or reference input should only be used where a DANTE input adapter cannot be used, the DANTE input adapter is the preferred method.

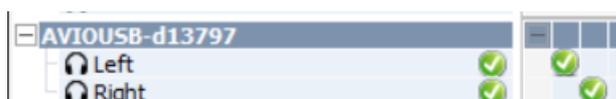
Supported DANTE adapters

The Dante AVIO adapter, model number ADN0005 is supported by VoiceTRX100.



Configuration

1. Connect the Dante AVIO adapter to one of the two USB ports on the rear of the VoiceTRX-100.
2. Connect the Ethernet connection on the Dante AVIO adapter to the same network as the far end audio source, usually your Dante DSP.
3. Route the audio from the far end to the Dante AVIO input using your DSP and the Dante controller application. If you are routing two channels of audio, use both the left and right channels of the AVIO adapter.



4. Navigate to the VoiceTRX100 'System' tab and set the 'Far end Period' and far end Trigger (dB) values as required.

For the far end to be marked as active, and subsequently all microphones to be forced to the 'Home Zone' (-1), the audio level must be above the 'Far end Trigger' threshold in dB for the 'Far end Period'.

Microphone

Trigger Period(ms)	<input type="text" value="500"/>
Home Period(ms)	<input type="text" value="5000"/>
Far end Period(ms)	<input type="text" value="10000"/>
Far end Trigger(dB)	<input type="text" value="-35"/>
Switch Delay(ms)	<input type="text" value="1000"/>

You can check the current dB value from the status on the 'Dashboard' tab.

Mic Status

Audio Far End (USB)

██████ farend: false ██████ avg_dB: -20

Behaviour

For the far end to be marked as active, and subsequently all microphones to be forced to the 'Home Zone' (-1), the audio level must be above the 'Far end Trigger' threshold in dB for the 'Far end Period'.

Once the far end is active, it will stay active for the 'Far end Period' at minimum. We sample the audio input from the Dante AVIO adapter every 500ms, if it's over the 'Far end Trigger' threshold we increment to the period, if it's less then decrement.

While the far end is active, local zone changes are blocked, VoiceTRX100 will stay on the 'Home Zone' (-1) it cannot be interrupted.

Profile

Profiles contain all modules, module settings and actions. You can save and load profiles using the buttons below or the DVIP Control Protocol.

No.	Profile Name	Edit	Load	Save
1	Office			
2	Preset 2			
3	Rob			
4	Preset 4			
5	Preset 5			
6	Preset 6			
7	Preset 7			
8	Preset 8			
9	Preset 9			
10	Preset 10			

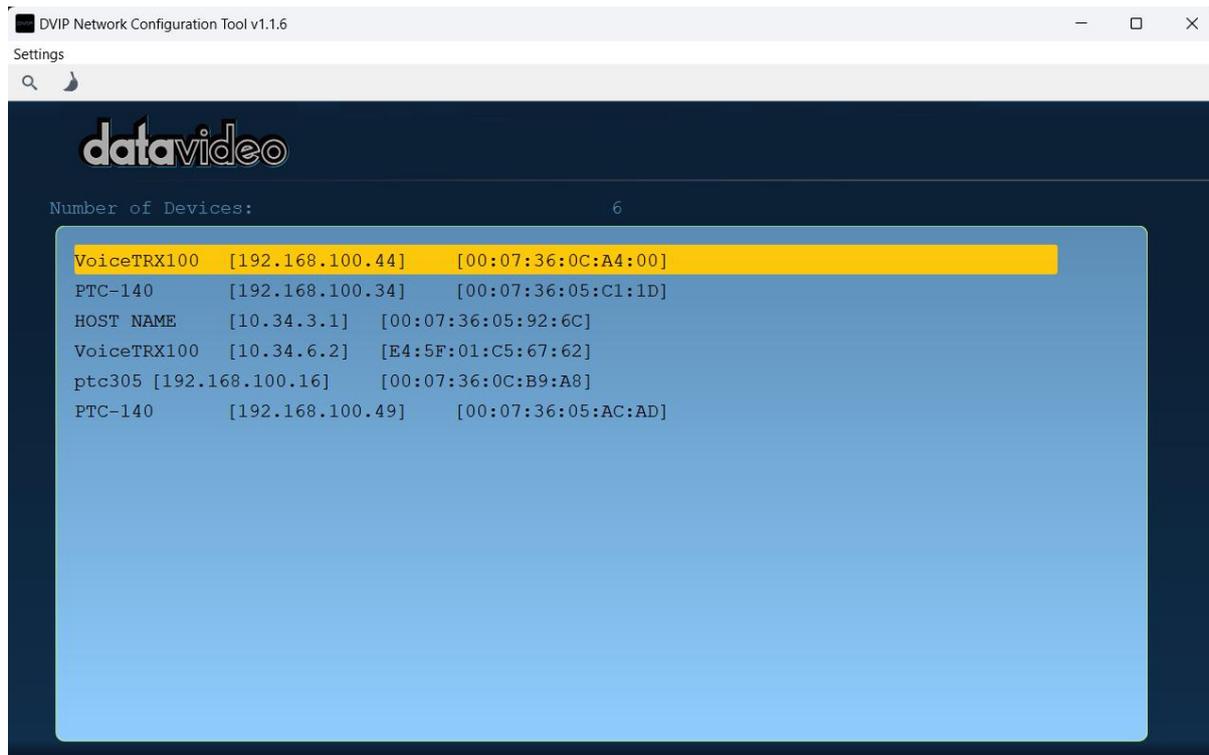
DVIP Control Protocol

The VoiceTRX-100 supports control from third party control systems over using our IP control protocol (DVIP).

Discovery and IP configuration

The DVIP Network Configuration Tool can be downloaded from the link below, this tool allows you to discover and configure the network settings of all DVIP devices.

<https://www.datavideo.com/global/product/DVIP>



DVIP command structure

The DVIP Ethernet Control Guide can be downloaded from the link below.

<https://www.datavideo.com/global/product/DVIP>

The VoiceTRX-100 accepts control command packets over TCP port 5002. Please pay particular attention to the packet structure, the first two bytes define the packet length.

For example, to turn audio tracking on the complete packet would be as below.

0x0, 0x8, 0x81, 0x0a, 0x11, 0x54, 0x02, 0xff

The command packet is 6 bytes, plus the additional two bytes for packet length = 8 bytes or 0x8.

Device specific commands

Command	Command Packet	Description
Audio tracking on	81 0a 11 54 02 ff	Enable execution of actions
Audio tracking off	81 0a 11 54 03 ff	Disable execution of actions
Check tracking status	81 09 7E 11 54 FF	p: 02: On 03: Off

Recall profile	81 0A 0F 0F 0p 0q FF	Load a user profile. pq : Profile Number 01h ~ FFh
----------------	----------------------	--

HTTP Control Protocol

Command	Command Structure	Description
Audio tracking on	http://your.ip/control?feature=tracking&value=on	Enable execution of actions
Audio tracking off	http://your.ip/control?feature=tracking&value=off	Disable execution of actions
Recall profile	http://your.ip/control?feature=preset_load&value=1	Load a user profile. Profiles containing actions and hardware configuration. Replace 1 with preset number.

Factory Reset

Hold in the reset pin for 10 seconds, this will reset the default username and password and reset the network to DHCP.

Specifications

Control	Web browser UI for configuration and control DVIP commands
Protocol	DVIP
Network	1 x RJ-45 Female (10/100/1000M Ethernet) DHCP/Static IP
POE	IEEE 802.3at
Firmware Update	Automatic Firmware Upgrade
Power	Input AC 100 – 240V Switching Adapter Output DC 12V / 1A
Video Output	2 x HDMI 2.0
Supported Video Output Resolution	Up to 3840x2160p60
Supported Video Switchers	iCAST 10NDI KMU-100+
Supported Microphones	Audio-Technica ATND1061 Shure MXW Microflex Shure MXA-910 Shure MXA-920 Sennheiser TCCM Sennheiser TCC2

Notes

Service & Support

It is our goal to make owning and using Datavideo products a satisfying experience. Our support staff is available to assist you to set up and operate your system. Contact your local office for specific support requests. Plus, please visit www.datavideo.com to access our FAQ section.

Please visit our website for latest manual update.

<https://www.datavideo.com/product/VoiceTRX100+>

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