

Audioarts DSP Voice Processor/Controller

Quick Start Guide

Version 1.0.0 – July 2023



Included with your Voice 1 package is a document containing a web link and a QR code. You can scan the code or enter the link into your computer to be directed to a location on our website from which you can download this Quick Start, the Voice 1 manual and the Voice 1 Remote Application, which you will need in order to fully configure the Voice 1's EQ and Dynamics.

Install and connect the VOICE 1:



1. The Voice 1 is a half-width, 1RU device and may be rack mounted using a singleor dual-mount rack panel, available from Wheatstone. It may also stand alone or sit on an industry-standard rack shelf. If using a shelf or rack mount, you may install it using only two screws as long as the screws are installed using the bottom holes of the shelf or rack mount to prevent undue stress on the panel.

- 2. Connect a microphone to the XLR female microphone input on the rear panel.
- Connect either the analog out or AES digital out RJ-45 connector to your desired signal path. If using the Analog output, select whether you wish the output to be presented at line level or mic level. Wiring follows the StudioHub standard.
- 4. Connect the rear panel Ethernet RJ-45 jack as appropriate for your intended use:

AUDIO WIRING						
RJ45 PIN (WIRES*)	SIGNAL					
1 (WHT/ORG)	LEFT + / AES +					
2 (ORG)	LEFT - / AES -					
3 (WHT/GRN)	RIGHT +					
6 (GRN)	RIGHT -					
4, 5, 7, 8	UNUSED					

* EIA/TIA T568B WIRE COLORS

- a) For direct connection to a PC running the Voice 1 Remote Application, use a crossover CAT5 cable (newer PCs with auto-sensing NICs don't require a crossover cable);
- b) For connecting into your Wheatnet LAN use a straight through CAT5 cable from Ethernet switch.
- **5.** Connect the AC power cord to the VOICE 1 rear panel connector and then plug it into AC power. The VOICE 1 will power up.

Operating the VOICE 1 Locally

You may use the front panel encoder knob and button to make certain adjustments including setting or changing the unit's IP address, but the Remote GUI is required to fully control the processor.

Operating the VOICE 1 Remotely – Installing the GUI Software

For remote operation via the GUI software, download the VOICE 1 Remote Application GUI software from the link on the document provided with the unit and follow the steps below to install the software:

- Right-click the installer file that you downloaded and select the option "Run as Administrator."
- Check the box "I accept the terms of the License Agreement." The agreement that you are accepting is displayed in the window above the check box. Click "Next."
- Observe the list of components that will be installed and click "Next."
- The system will choose its own install folder, though you have the option to change it (not recommended). Click "Install."
- The installation will complete and you can close the setup program.

Configuring the VOICE 1 IP Address¹

Once the GUI has been installed you must configure it and the VOICE 1 so that they can communicate with each other. This requires configuration for both the VOICE 1 and the remote GUI so that they agree on the networking parameters.

The default IP address of the Voice 1 is **192.168.87.131**. It's possible that you have a Blade or PC driver in your system using that IP address and you don't want to plug the Voice 1 into your Wheatnet network and cause an IP address conflict, so please take the time to ensure that there won't be a conflict or change the IP address of the unit before joining it to your network.

The IP address can be changed from the front panel of the unit. Turn the encoder knob to the "Network" setting and press the knob. This will put you into the IP address set mode. Turn the knob to highlight "IP Address" and press. Now you can turn the knob to change each octet of the IP address, pressing it to save your settings. When all four octets are set correctly, proceed to verify or change the subnet mask and gateway. The MAC address of the unit is also displayed on this screen, but this is set at the factory and cannot be changed in the field.

¹ The VOICE 1 does not support DHCP (Dynamic Host Configuration Protocol) and therefore requires a static TCP/IP address on the network. Its presence on the network will not interfere with DHCP addressing of other network connected devices as long as the IP address that is configured for the VOICE 1 does not conflict with the address of any other device on the network. Please consult your friendly IT manager if necessary.

Now that the VOICE 1 has its own TCP/IP identity, we must configure the GUI so that it can talk to the VOICE 1. This is done by adding "devices" to the list of VOICE 1s that the GUI knows about. To do this, locate and click on the "Devices" button that is located along the right side of the GUI (outlined in red in the screenshot):



Voice 1 Remote GUI Main Screen

When this is done, the following window will pop up:



Voice 1 Device Management Window

Next, click the "Add" button and a new dialog box will appear. This is how new devices are added or the configuration of existing devices modified.

Add	X					
Name:						
IP Address:	192.168.1 .					
Okay	Cancel	Browse				

Add Device Window

Enter a unique nickname for the Voice 1 unit you are adding and enter its IP address. Please don't use any leading zeroes in the IP address field. Click OK. Now highlight the unit you just entered and click on Select (this step tells the GUI specifically which VOICE 1 you want to connect to):

	X	
Name	IP Address	Add
Stu A Mic 1 Stu B Mic 1	192.168.87.219 192.168.87.220	Edit
		Delete
		Select
		Manage
		Close

Device Management Window

The above dialog shows we have added a new device called "Stu B Mic 1", noting that there is already a configured device showing in the Devices dialog box called "Stu A Mic 1."

Next, take a look at the top of the GUI where you'll find the Status and Device indicators. The status indicator tells you whether you are "Online" with the device listed in the Device field. To go online with the processor so that you can make EQ and dynamics adjustments, click the button to the left of the Status indicator. A successful connection will turn on the green light and change the Status indicator from Offline to Online (see screenshot at the top of the next page).

	Dynamics Equ	alizer	Scheduler	System	Υ-	P	resets	
							105005	
SYSTEM						List		Save
Сор	rocessor Version		Status				ibrary	
FPGA:		Temperature:			11_			
DSP:		Date & Time:				Ha	ardware	
Software:		CoProc IP:					ovices	_
Built:	Built: CoProc MAC:			::: Devices				
		WNIP Host Blade:						
		WNIP Sampe Rate:			+20	0		+20
	GUI Version	Miscellaneous	Secu	rity	+16			+16
0.4					+12			+12
Software:	0.0.14	Set Time	Remote Login	Front Panel	+8			
Built:	Jun 13 2023				+4	-12		+4
	22:31:17		GUI Access	GUILOCK	0	10		
NIC Address:	192.168.87.2				-4	-10		-4
	Set NIC				-12	-24		-12
					-16			-16

Online, Status and Device Indication

In the Status window you may see the message "Trying" as the GUI is handshaking with the VOICE 1. Once the handshake is complete and communication protocols are locked in the Status message should revert to "Online".



If for some reason the GUI cannot connect with the VOICE 1, the "Trying" status message will remain and will occasionally blink as the GUI retries the establishment of a connection. Under these circumstances the configuration of the GUI and VOICE 1 should be carefully examined to ensure that the destination TCP/IP address is consistent between the two. It might help to go to the Device Edit screen and completely remove the IP address you entered, then re-enter it using the "period" key on your computer keyboard to separate the octets as you enter the address (again, no leading zeroes).

Input/Output Screen

Input	:	Output			
Input Gain	HPF Freq	Output Gain	AES Out Mute		
	\bigcirc				
+50.0 dB	41.7 Hz	+ 4.5 dB	RT Mute		
Phantom Power	LPF Freq	Streaming	Sample Rate		
Off	13.5 kHz	None	44.1 kHz		
De- Correlator	Enable Filters				
PLL DAC: 000					

Input/Output Screen

There are several input/output options available on this screen. Most are fairly straightforward and are discussed in detail in the Voice 1 Manual. But there are a few we need to touch on in this quick start guide.

Input Gain Set this to an appropriate level for the microphone or other device you are using with this Voice 1 processor. Input Gain ranges from -10 to +70 dB. Note that this is the amount of gain applied to the input before any EQ or dynamics are applied. For a microphone you will probably want something in the +40 to +50 dB range.

Phantom Power Turn on if needed. It is off by default.

Streaming The Voice 1 can be used as a standalone voice processor, or it can be used as part of your Wheatnet network audio system. On the In/Out screen you will select whether to enable WNIP or AES67 streaming.

If you are using the Voice 1 as part of your Wheatnet system, enable the WNIP stream option on this screen. You will also need to add the Voice 1 as a Peripheral Device. This is done in Navigator. From the Devices | Peripheral Devices tab, select the Add button and give the new Voice 1 an identifying name. Enter its IP address (leave the TCP Port field at the default value unless you know for certain

🚾 Add Peripheral Device - Wheatnet-I 🛛 🗙								
Peripheral Device								
	Name:	StuBMic1						
	IP Address:	192.168.87.220						
	TCP Port:	60021						
	Host Blade:	Blade01	•					
OK Cancel								

you should change it) and select a host blade. Click OK. The device should appear in the device list with a green light.

Launch	-	🛲 StuBMic1	192.168.87.220	60021	Blade01	1	Wheatstone	Voice1
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screen encoder knobs, you can click on the knob with your mouse and use a rotating action around the knob while the mouse button is held, but it's much easier just to hover your mouse over the knob and use the center wheel to "turn" the knobs. If you need a 1ms AES67 stream for use with a non-Wheatnet device, turn on the AES67 Streaming option. The system will present you with the information you need to configure the receiving AES67 device including the assigned multicast address, port number and packet type you will need to enter there:



AES67 Settings

If you are just using the Voice 1's AES or Analog outputs, you can turn the streaming off. In this case the Sample Rate setting will appear. Set it to the desired sample rate.



Input/Output Screen with Sample Rate