This describes the audio changes required switch to a customized audio configuration for a play or other non-standard activity followed a clear procedure accomplishing this in a repeatable and low risk manner. Given the large extent of changes involved, the limited opportunities to exercise them and the large potential to make mistakes, all operators MUST follows the guidelines and procedures outlined here. Once completed, they still allow for any additional customization you may require. Think of this as a prescribed starting point.

Planning

If you know that you'll be running a show of this nature, gather as much information about it as you as <u>early</u> as possible. Give yourself enough time to plan this out without being under pressure. Build your snippets and switch your wireless mic Groups in advance so you can verify the changes. Write down a summary of the changes for both your use and any other audio operator that needs to jump in and help. Always practice the way you plan on running live. Avoid doing anything different or for the first time during the live show if possible.

- How many mics are needed and of what type?
- Is a program or detailed script available? If so, use it during practice highlighting any cues for audio.
- How will monitors be used?
- Will there be any speakers that require mics in addition to the show?

Wireless Changes – DO change receiver groups; Do NOT sync Transmitters

The need to utilize more body packs for plays than handheld mics drives most of the changes. The (2) new Quad receivers can switch between any combination of the (8) Handhelds or (8) Body Packs. Additionally, we have (3) handheld and (2) body packs legacy wireless devices we can also use (shown in the table on the right).

The new wireless transmitters are sync'ed with a preset wireless group/channel that should <u>not</u> be changed. This way the configuration is deterministic and easily switchable between handheld and body back without conflict. The table to the right depicts this schema. Each handheld and body pack are assigned to a single channel; the Group determines if it is tuned to a handheld (Group 24) or body pack (Group 25). You can change the group directly on the receiver itself but it is much easier to do it with

BLX88 (ch1)	Hand 09
BLX88 (ch2)	Hand 10
PGX4 (1)	Hand 11
PGX4 (2)	Orchestra LAV
SLX4	Pack 9

1Quad 1 Gxx:ch1Hand 1 ± Pack 1Shure2Quad 1 Gxx:ch2Hand 2 ± Pack 2ULXD4Q13Quad 1 Gxx:ch3Hand 3 ± Pack 34Quad 1 Gxx:ch4Hand 4 ± Pack 45hure1Quad 2 Gxx:ch5Hand 5 ± Pack 52Quad 2 Gxx:ch6Hand 6 ± Pack 63Quad 2 Gxx:ch7Hand 7 ± Pack 74Quad 2 Gxx:ch8Hand 8 ± Pack 8			Hand = Group 24	Pack = Group 25					
1Quad 1 Gxx:ch1Hand 1 ± Pack 1Shure2Quad 1 Gxx:ch2Hand 2 ± Pack 2ULXD4Q13Quad 1 Gxx:ch3Hand 3 ± Pack 34Quad 1 Gxx:ch4Hand 4 ± Pack 451Quad 2 Gxx:ch5Hand 5 ± Pack 52Quad 2 Gxx:ch6Hand 6 ± Pack 6ULXD4Q23Quad 2 Gxx:ch7Hand 7 ± Pack 7		4	Quad 2 Gxx:ch8	Hand 8 E Pack 8					
1Quad 1 Gxx:ch1Hand 1 ± Pack 1Shure2Quad 1 Gxx:ch2Hand 2 ± Pack 2ULXD4Q13Quad 1 Gxx:ch3Hand 3 ± Pack 34Quad 1 Gxx:ch4Hand 4 ± Pack 451Quad 2 Gxx:ch5Hand 5 ± Pack 52Quad 2 Gxx:ch6Hand 6 ± Pack 6	ULXD4Q 2	3	Quad 2 Gxx:ch7	Hand 7 E Pack 7					
1Quad 1 Gxx:ch1Hand 1 ± Pack 1Shure2Quad 1 Gxx:ch2Hand 2 ± Pack 2ULXD4Q13Quad 1 Gxx:ch3Hand 3 ± Pack 34Quad 1 Gxx:ch4Hand 4 ± Pack 41Quad 2 Gxx:ch5Hand 5 ± Pack 5	Shure	2	Quad 2 Gxx:ch6	Hand 6 E Pack 6					
Shure1Quad 1 Gxx:ch1Hand 1 E Pack 12Quad 1 Gxx:ch2Hand 2 E Pack 2ULXD4Q 13Quad 1 Gxx:ch3Hand 3 E Pack 34Quad 1 Gxx:ch4Hand 4 E Pack 4		1	Quad 2 Gxx:ch5	Hand 5 E Pack 5					
1 Quad 1 Gxx:ch1 Hand 1 ± Pack 1 Shure 2 Quad 1 Gxx:ch2 Hand 2 ± Pack 2 ULXD4Q1 3 Quad 1 Gxx:ch3 Hand 3 ± Pack 3		4	Quad 1 Gxx:ch4	Hand 4 E Pack 4					
1 Quad 1 Gxx:ch1 Hand 1 Ξ Pack 1 Shure 2 Quad 1 Gxx:ch2 Hand 2 Ξ Pack 2	ULXD4Q1 3		Quad 1 Gxx:ch3	Hand 3 E Pack 3					
1 Quad 1 Gxx:ch1 Hand 1 E Pack 1	Shure	2	Quad 1 Gxx:ch2	Hand 2 E Pack 2					
		1	Quad 1 Gxx:ch1	Hand 1 E Pack 1					

the Wireless Workbench software from the group drop down menu. As shown on the next page.

Example 1: Group 24: ch 5 refers to Handheld 5Example 2: Group 25: ch 8 refers to Body Pack 8Note: Pastor 1=Ch8, Pastor 2=Ch7, Usher=Ch6 for normal CBC Service operation configuration.

The image on the right shows a the standard wireless configuration for a CBC service in Wireless Workbench with the Group Menu selector shown.

	Model	Channel Name	Device ID	Band	G & Ch	Frequency
					Microphone	(8)
	ULXD4Q	Hand 1	[ULXD4Q-1]	H50	G:24 Ch:01	573.350 MHz
	ULXD4Q	Hand 2	[ULXD4Q-1]	H50	G: 24 • Ch: 02 •	573.700 MHz
🖤	ULXD4Q	Hand 3	[ULXD4Q-1]	H50	G 19	574.400 MHz
🖤	ULXD4Q	Hand 4	[ULXD4Q-1]	H50	G 21	574.750 MHz
🖤	ULXD4Q	Hand 5	[ULXD4Q-2]	H50	G 23	575.250 MHz
🖤	ULXD4Q	Usher	[ULXD4Q-2]	H50	G 25	581.200 MHz
🖤	ULXD4Q	Pastor 2	[ULXD4Q-2]	H50	G 27 Y	581.650 MHz
🖤	ULXD4Q	Pastor 1	[ULXD4Q-2]	H50	G:25 Ch:08	582.275 MHz

Additionally, Wireless Workbench configuration files can be opened allowing for a quick way to load a saved wireless receiver preset. There are three presets already saved below. The CBC Service.shw is the normal configuration and the other two switch all (8) receivers to either handhelds or body packs. It is recommend that you save your custom configuration for your play or show to quickly go back and forth between the normal configuration and yours.

When you open one of these files, the software will ask you if you want to keep the settings from the online devices or from Wireless Workbench. Select Wireless Workbench and Apply to All. Alternatively, you can expand the "Detailed Options" and selected per device.

5:\Media {Working}\avteam\Audio Configs\Wireless Workbench Presets	Settings Conflicts		×			
□ Name	There are different settings b Workbench. Please choose t	etween the online devices ar he settings you would like to	nd the settings saved in Wireless b keep.			
CBC All Handhelds.shw	Keep all settings from: Online Devices Wireless Workbench					
CBC Service.shw	Detailed Options 🔻 —— Searc	h the <u>Help System</u> for the te	rm Frequency and Device Settings			
	ULXD4Q - Devi	Apply				
	Frequency Settings Device Settings	Frequency Settings Online Device Device Settings Online Device				
	ULXD4Q - Devi	ce ID: [ULXD4Q-1]	Apply			
	Frequency Settings Device Settings	Online Device	 Wireless Workbench Wireless Workbench 			
			Ignore Apply to All			

The text labels on the transmitters for the Quad receivers can only be changed via a re-sync through the IR port on the receiver itself. While this is harmless assuming the Group/Channel are not changed, it is easy to mix things up and is therefore strongly discouraged. Instead, it is preferred to change the label on the M32 as desired and leave the transmitters in their default configuration. The individuals using the mics just need to remember which mic they had (i.e. Pack 4 = Henry).

Dante Network Audio Routing - Do NOT make Dante Changes!

While Dante can be easily configured to reroute or fan out audio, our current configuration is specifically designed to leave Dante untouched. The goal is to keep most, if not all, changes observable to the audio operator on the M32 rather than having to worry about changes in multiple places/devices. While individual Dante routing changes are quick and easy, loading a Dante preset to restore a change (which is the safest way to revert) can take over 10~20 seconds in some cases. This makes switching Dante configurations in the middle of a service, non-ideal. Contrast that with a near instantaneous change when a M32 snippet or scene are loaded.

The one exception to this would be if we had other audio sources we wanted to switch in that aren't currently routed to the M32. While this is not the case currently, it is quite possible that we could be in this situation in the future.

M32 Changes

There could be a number of things you'd want to change on the console for a play, but as stated previously, wireless mic changes are the primary changes. This section focuses on make these wireless changes well understood and straight forward to implement.

Some of the types of M32 changes that might be employed include:

- Layout/Input Routing it may be helpful to change the grouping of inputs on the board. If so, re-routing the card inputs to the desired physical channel on the board would be the way to go.
- Scribble strip changes change mics labels to the individual's name and colors
- Bus Sends switching between Solo and/or the Body Pack Bus (Pastor)
- Dynamics/EQ/Effects applied to inputs only
- Monitors it may be advantageous to alter what we send to the monitors in some cases
- New Inputs contact the AVteam/Audio lead(s) if there are unique inputs you need that are not on the M32.

APPROACH

The approach we employ to manage these changes leverages snippets by switching to/from the custom configuration for the play. This is preferred over a scene change as it surgically applies only the few things that need to change on the fly. While doing this with scenes is feasible, it is a much larger change which makes it difficult to load in the middle of a show without unintended changes (even if just fader levels).

The snippets outlined in the steps below use the parameter filter shown on the right. As you can see, it allows you to save almost any input channel setting for channels 1-8 and 19-24.



M32 PROCEDURE

- 1. Change the Quad Wireless Receivers to tune to the desired Group as described above.
- 2. Load the <u>CBC Service</u> Scene this ensures you are running the latest baseline.
- 3. Save the <u>Play Reset</u> Snippet this ensures the current CBC Service Settings are updated in the reset snippet.
- 4. Load the <u>Play Live Start</u> Snippet this loads the starting point for customizing a play detailed below.
- 5. Make any additional changes to Channels 1-8 and 19-24 such as scribbles, EQ, effects, bus sends (i.e. monitors).
- 6. Save the <u>Play Live</u> Snippet stores your customized tweaks for your play while preserving the starting point snippet.

Switch back to the normal Configuration:

- 1. Change the Quad Wireless Receivers to tune to the desired Group as described above.
- 2. Load the <u>Play Reset</u> Snippet OR <u>CBC Service</u> Scene
 - a. Use the Snippet if switching back and forth during the show
 - b. Use the Scene to return the M32 back to baseline completely; usually after a show completes.

M32 WIRELESS DEVICES – BASELINE BEFORE CHANGES

- Wireless Quads: Channels 1-5 = Handhelds, Channels 6-8 are Body Packs.
- Handhelds → Solo Bus/DCA & Reverb Bus/DCA
- M32 Input Routing: All M32 channels map 1-to-1 with Dante channels.

A snapshot of this configuration is shown below:

Hand 1	Hand 2	Hand 3	Hand 4	Hand 5	Hand 9	Hand 10	Hand 11	Podium	Pastor 1	Pastor 2	Usher	Pack 9	Pack 5	Pack 4	Pack 3
Solo	Solo	Solo	Solo	Solo	Solo	Solo	Solo	Solo	Solo						
0030		0030			0030	0030	0030	0800	1000	1000	1000	1000	1000	1000	1000
-00	-00	-00	-00	-00	-00	-00	-00	0.0	0.0	0.0	0.0	0.0	-00	-00	-00
0							0								
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
5	5	5	5	5	5	5	5	5 <u>-</u>	5	5	5	5	5	5	5
0	0	0	0	0	0	0	0	• • -	•]⊛[-	••-	• • -	• • • -	0	0	0
5	5	5	5	5	5	5	5	s≣⊒	5	5	5	5	5	5	5
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
- 0 -			-0-		-0-	- 0 -							-0-	-0-	- 0 -
000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000		000000	
Mute	Mute	Mute	Mute	Mute	Mute	Mute	Mute	Mute	Mute						
Ch 01	Ch 02	Ch 03	Ch 04	Ch 05	Ch 06	Ch 07	Ch 08	Ch 17	Ch 18	Ch 19	Ch 20	Ch 21	Ch 22	Ch 23	Ch 24

Body Packs \rightarrow Pastor (i.e. our Body Pack Bus/DCA)

M32 WIRELESS DEVICES – AFTER CHANGES

- Wireless Quads: Channels 1-7 = Body Packs. Channel 8 = Pastor 1.
- Legacy Devices: Handhelds 9, 10, 11 moved to M32 Ch22-24. Pack 9 and Orch LAV moved to Ch8 & Ch19.
- Handhelds \rightarrow Solo & Reverb Body Packs \rightarrow Solo Exceptions: Pastor 1 & Pack 10 \rightarrow Pastor Bus.
- M32 Input Routing: changes highlighted in blue below. Example: M32 Ch6 = Card 20.

 Card (Dante Inputs)
 D.20
 D.19
 D.21
 D.27
 D.6
 D.7
 D.8

 M32
 Ch1
 Ch2
 Ch3
 Ch4
 Ch5
 Ch6
 Ch7
 Ch8
 Ch17
 Ch18
 Ch19
 Ch20
 Ch21
 Ch22
 Ch23
 Ch24

Pack 1	Pack 2	Pack 3	Pack 4	Pack 5	Pack 6	Pack 7	Pack 9	Podium	Pastor 1	Pack 10	Hand 2	Hand 3	Hand 9	Hand 10	Hand 11
Solo	Solo	Solo	Solo	Solo	Solo	Solo	Solo								
0030	0080	0030	0030	0090	0080	0090	0030	0200	1000	1000	0030	0030	0030	0080	0080
-00	-00	-00	-00	-00	-00	-00	-00	0.0	0.0	0.0	-00	-00	-00	-00	-00
							0								
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
0	o=	o	o	0	o=	0	o	•	• • –	• • -	0	o	o	0=	0
5	5	5	5	5	5	5	5	5 EE	5	5	5	5	5	5	5
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
50	50	50	50	50	50	50	50 	50— — — —	50 <u> </u>	50	50	50	50	50 	50
Mute	Mute	Mute	Mute	Mute	Mute	Mute	Mute								
Ch 01	Ch 02	Ch 03	Ch 04	Ch 05	Ch 06	Ch 07	Ch 08	Ch 17	Ch 18	Ch 19	Ch 20	Ch 21	Ch 22	Ch 23	Ch 24