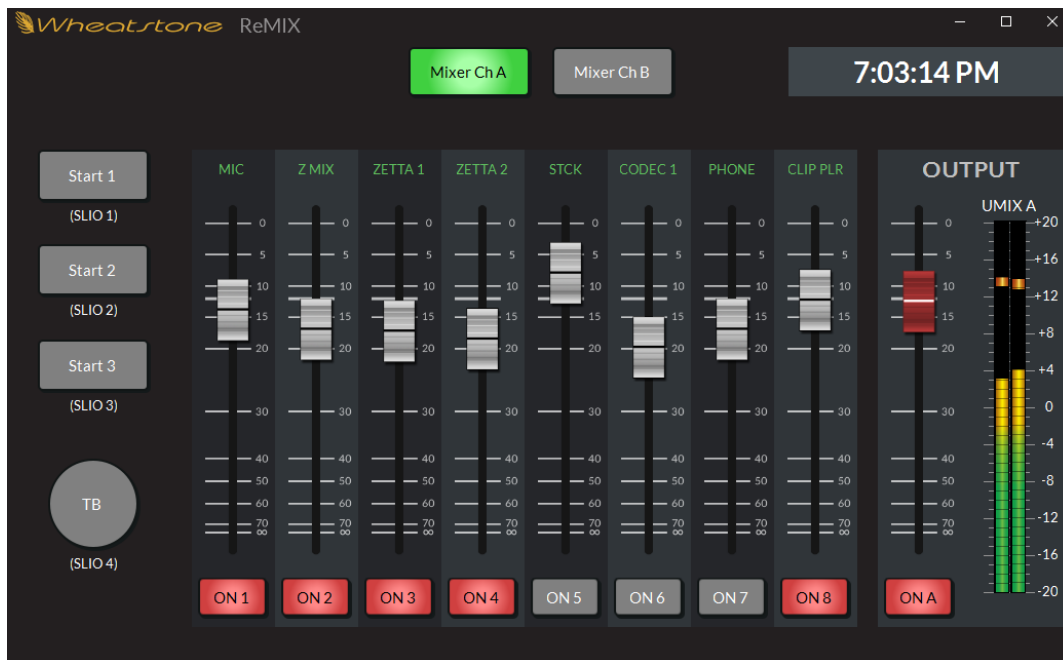## ReMIX – A UMix Remote Control app for non-technical users
(O87946 WNIP-ReMIX)

Overview

ReMIX is a standalone WheatNet-IP Windows™ app (Windows 7 - 10) designed for non-technical users to remotely control a Utility Mixer, a feature in most Blade-3 blades. Designed to facilitate live remotes, where one needs to control and mix up to eight studio sources, the ReMIX app is typically run on a facility PC accessed by a remote site using any station-approved remote access software. The app can also be run on a PC at a remote location—when there's secure remote access directly into the WheatNet-IP network.

A Utility Mixer (UMix) uses a Blade's DSP to create a virtual 8x2 mixer with channel on/off and logic control, and with both channel and master output faders. Once a UMix is configured by engineering using Navigator, the ReMIX app is then setup to access that UMix so that air talent and other non-technical users can remotely control the UMix in real time from their home or other remote location with Internet connectivity. ReMIX is typically used in conjunction with a codec to carry audio to/from the remote location.

Setup

Before ReMIX can control a UMix, that UMix must be enabled (UMixes are disabled by default). To enable a UMix, in Navigator select a Blade then select its Utility Mixer tab. (If the Blade doesn't have a Utility Mixer tab then ReMIX cannot be used with that Blade.) Locate the Enable check box in the tab's lower right corner (shown at right). When checked, eight new destination signals: BLxxUMX1 - BLxxUMX8 (the eight fader channel sources), and two new source signals: BLxxUMXA and BLxxUMXB (the two UMix outputs) are added to Navigator with the xx in the names being the host Blade's ID #. These default signal names can be edited, if required.

Any combination of mono and stereo sources a user might need to access during their remote can be cross connected to the eight UMix channels using Navigator's Crosspoint Grid. Alternately, if that UMix needs to be controlled by various ReMIX users with different source requirements, creating a Salvo for each user will simplify UMix setup. The active source names are shown in the Utility Mixer tab, and at the top of the ReMIX fader channels—or they will be once ReMIX is connected to that Blade. One or both UMix outputs (UMIX A and UMIX B) can then be cross connected to WNIP system destinations. UMIX A would typically go to an air switcher, a Surface fader channel, or a stream output, while UMIX B could be used to create a mix-minus feed for a caller or other remote site, etc. Note: The channel on/off buttons affect both the UMIX A and UMIX B outputs, but each output has its own set of channel faders to allow two different mixes to be set up and used simultaneously.

Once one or more UMixes are setup, start the ReMIX app by double-clicking its desktop icon or select it from the Wheatstone menu item in the Windows Start menu. The ReMIX Connection screen (shown at right) opens. Verify the WNIP Network: field shows the NIC connected to your WNIP system, typically an address in the 192.168.87.0 subnet.
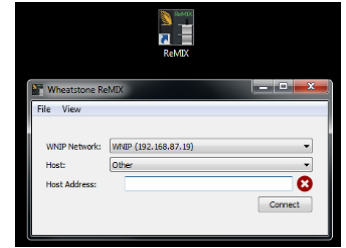
In the Host Address: field enter the IP address of the host Blade (the Blade with the UMix that ReMIX will be controlling). If that address is valid, the red X changes into a green checkmark. Note: The green checkmark only confirms that ReMIX can talk to that Blade, it doesn't identify whether there's a UMix in that Blade. Click Connect to open the ReMIX mixer screen (shown at the top of page 1). If the UMix is configured, the channel source names are listed above the faders. The ReMIX mixer screen and the Utility Mixer tab are synchronized so changing a setting in either one affects both displays. Note: Navigator does not have to be running to use ReMIX. ReMIX talks directly with the host Blade.

Multiple host Blade IP addresses can be added to the ReMIX Connection screen. To add additional host Blades, select Other in the Host: field. In the Host Address: field either edit the previous IP address by changing its last octet to the new host Blade's IP address or erase and type in a new IP address. If you mistype the address; if the Blade is offline; or if that PC is not connected to the WNIP system, the red X icon will not switch to a green checkmark, even with a valid IP address. If you were to click Connect in this condition the ReMIX mixer screen still opens, but ------ is displayed on all channels and the output meters will slowly scan upwards to indicate ReMIX is not connected to a host Blade.

Context Menu Items

Right-clicking on the ReMIX mixer screen opens a context menu. These seven menu items are used to setup how ReMIX looks on screen and operates.
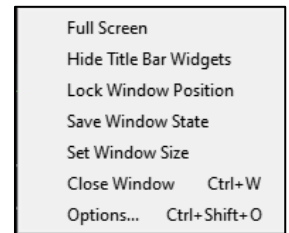
Full Screen–Checkmark this item to enlarge ReMIX to fill the monitor's display.

Hide Title Bar Widgets–Checkmark this item to remove the title bar's minimize, resize, and close icons, to keep users from minimizing, resizing, or closing the app. Note: Pressing Ctrl+W will still close the ReMIX mixer screen.

Lock Window Position–Checkmark this item to keep a user from repositioning the ReMIX mixer screen. This is typically used when ReMIX needs to appear on-screen alongside other apps.

Save Window State–Select this option to save the size, position, and the checked selections so that the ReMIX mixer screen reopens using the same screen position and size.

Set Window Size–The default setting is 1040x640. The ReMIX mixer screen can be scaled down if multiple apps need to be displayed simultaneously on-screen. Using 640x480 shrinks ReMIX by about 60%. On a large monitor ReMIX could be scaled up to 1600x1200, if desired, which enlarges all controls.

Options...–Used to configure the four Hot Buttons on the left side of the ReMIX mixer screen. Details on using this menu item are in the Hot Button Logic section. The Options window also has check boxes to set whether the clock displays AM/PM or 24-hour time, and to disable using a right-click to access the context menu.

Channel Logic Control

Logic associated with ReMIX's audio sources can be enabled or disabled on a channel-by-channel basis by clicking the LIO Ctrl button in the Utility Mixer tab (just below the Enable button). This opens the Utility Mixer Logic Control window (shown at right). Logic control is enabled/disabled for any channel, regardless of its source. Check Machine Start to allow a momentary logic closure when the On button is clicked to turn a channel on. Check Machine Stop to allow a momentary logic closure when a red On button is clicked to turn a channel off. Check On Tally for a sustained closure while the channel is on. Remote On/Off enables an external device to control the ReMIX channel's on/off. The Cough and various Ducking commands are not applicable to ReMIX.
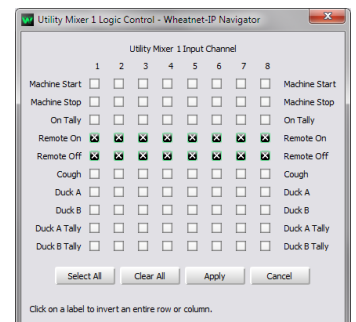
Note: To use channel logic control requires that the source has had logic assigned in Navigator. Refer to the Blade-3 manual sections on using Navigator to assign logic control to your audio sources.

Hot Button Logic

The four **"Hot Buttons"** (Start 1, Start 2, Start 3, and TB), along the left side of the ReMIX mixer screen, are setup just like soft keys on a Surface. These momentary controls are mapped to SLIO # 1 – 4, by default. The ReMIX Options window is used to rename the button, to set them to use other available SLIOs on the Host, and/or to be set for toggle or latched operation. To open the Options window, use the combo keystroke: Ctrl+Shift+O, or right-click on the ReMIX mixer screen to bring up the context menu and select Options...

The Name entry box allows the button names to be edited to list their function using up to 10 characters (you can enter more but only about 10 characters will appear on the button). The default SLIO numbers can be edited (1 – 128 are valid). Note: The assigned SLIO number is listed below each button on the ReMIX mixer screen for reference. Checkmark Latching to set that button for latched operation where clicking a gray button closes the logic, turning a rectangular button green or the round button red, to indicate a latched-on condition. Clicking the lit button then opens the logic and the button returns to its gray off color.
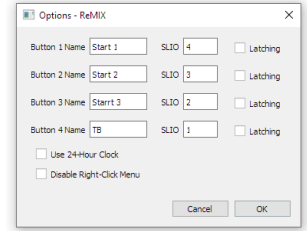
A Hot Button can be set to fire a salvo, make a momentary connection, take a processing preset, and/or trigger external logic on the host Blade. The host **Blade's** LIO Info tab, in Navigator, is where one assigns the first three actions in the Software LIOs section (shown at right). The example uses the default Hot Button mapping so Button 1 (Soft LIO 1) is used to make a momentary connection while active (in this example it connects the UMIX B output to the codec feeding the remote site so the user can monitor the UMIX B output while it's active, returning to monitor the UMIX A output while that button is inactive). Button 2 (Soft LIO 2) is set to fire the salvo LoriLive. Button 3 is set to take processor preset 1. These three actions are assigned by double-clicking in the column (Fire Salvo, Momentary Connections, or Take Preset) for that Soft LIO so you can select the salvo, momentary connection, or processor preset. When a button is set to take a salvo, make a momentary connection, or take a preset, you can verify that it's working by viewing **Navigator's** Log tab. Each of these actions generate log entries when the Hot Button is clicked.

Triggering a Hardware Logic Output

To setup a Hot Button to trigger the hardware logic on the host Blade, like that shown above using the Soft LIO 4 button function: Machine Start, requires creating and configuring a new LIO Only source, and a new LIO Only destination, and then cross connecting those two signals. How to do this is covered in the Blade-3 manual in detail, but here are the basic steps to do this for a ReMIX Hot Button:

1. Select the host Blade's Sources tab and click Add to create a new source.

2. The Add Signal window opens (shown at right). Set the Signal Type to LIO Only and enter a name for the new signal, like ReMIX 4, to indicate this signal is being used by the round TB button.
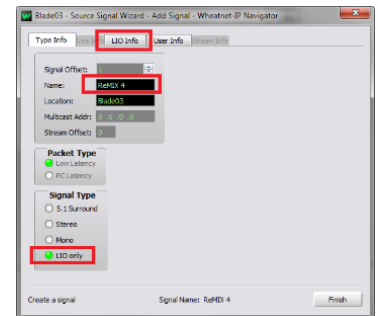
3. Click the LIO Info tab in this window to open the Assign an LIO window. In this window (shown right) expand the Software LIOs list and highlight the SLIO # assigned to that Hot Button. In this example we're using LIO 4. Set the Direction: to Input and the Function: to Machine Start. Click Apply and then Close to save those settings.
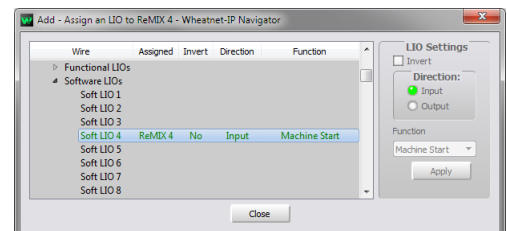
4. Select **the host Blade's** Destinations tab and click Add to create a new destination.

5. In the Add Signal window, set the Signal Type as LIO Only and enter the same name (i.e., ReMIX 4) used for the new Source logic signal.

6. Click th**at window's** LIO Info tab to open the Assign an LIO window (shown at right). Expand the Blade LIOs and select the Blade LIO Pin # you want to trigger (LIO 1 pin 2, in this example). Set the Direction: to Output and select the same Function (Machine Start) assigned for the source, then click Apply and Close to save your settings.
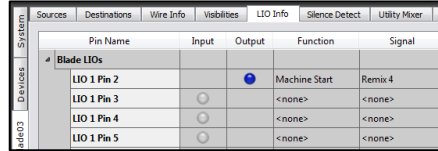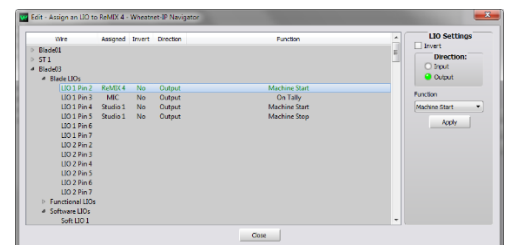
7. Cross connect the two "ReMIX 4" signals together in Navigator's Crosspoint grid, as shown at right.

Clicking the TB Button will now momentarily close that logic output to trigger an external device. You could alternately get a sustained closure by checking Latching in the Options window so that the button remains lit, and the logic remains true, until that button is clicked again. This type setting could be used to trigger a warning light at the studio to remind everyone that the studio is live, but from a remote location.

You can verify that your logic output is being activated using Navigator. View the host Blade's LIO Info tab and expand the Blade LIOs section (shown at right). While the logic is true, the round output indicator is lit blue.
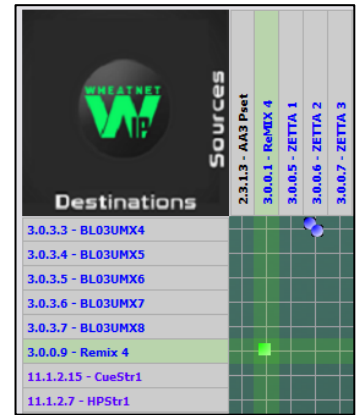
Releasing ReMIX for Use

When ReMIX is run on a station PC, it may need to be accessed by different users, which also may need to access UMixes on different Blades in your system. This isn't an issue when engineering is involved in starting each ReMIX session to select the correct UMix for each remote. But, when users will remotely access ReMIX without engineering assistance, each remote user will need to know the IP address for their assigned UMix so that when they start the app, and the ReMIX Connection screen appears, they can select their assigned UMix.

It may also be important that engineering control how the ReMIX mixer screen appears on screen and whether the right-click context menu items should be accessible by ReMIX users. The context menu items (shown at right) allow one to control exactly how ReMIX is positioned on screen and whether it's set for full screen, is resized, etc. When these are specifically setup by engineering, we recommend turning off right-click access to the context menu, which is done in the Options window.
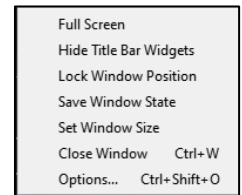
Select Options… or the combo keystroke: Ctrl+Shift+O to open the Options window (shown at right). Checkmark Disable Right-Click Menu to prevent users from using a right-click to access the context menu to change the ReMIX mixer screen's appearance. When this is done, engineering can still use the combo keystroke: Ctrl+Shift+O to open the Options window to make changes. Unchecking the Disable Right-Click Menu option (and clicking OK) will once again allow a right-click to show the context menu items.
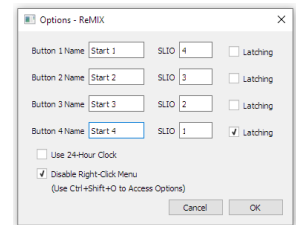
One final option that may need to be changed affects the clock time display. ReMIX show 12-hour (AM/PM) time by default. Checkmark Use 24-hour Clock to switch the clock display to show military or 24-hour time (e.g. 5:30:00 PM is displayed as 17:30:00). Click OK to save your changes and close the Options window.

ReMIX User Guide

This document is intended for engineering use only. A separate ReMIX User Quick Guide PDF file is available to give to ReMIX users.