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## The Broadcast Tools SS 16.4 Sixteen Input, Quad Output Stereo Audio Matrix Switcher with Parallel Input Port (PIP)

### Changing audio channels

WireReady recommends that the switcher be in Overlap mode. This is achieved by having both SW24-5 and SW24-6 dip switches OFF.

Only one device can be connected to one COM port, although BT enables up to eight SS 16.4 devices on the same serial port. WireReady32 only works with the device identified as unit 0. DIP switches SW24-1 and SW24-2 should be set to Off to set the address to 0. This is the default setting of the switcher. The ComTalk strings shown in this document assume that the address of the switcher is 0.

Control the audio channels using the ComTalk command in Automate. All commands start with "\*" and will be using unit device #0. Inputs will always be 2 characters and outputs are 1 character.

The basic format of the commands you will use is: \*uiio

Where U is the unit id, which is always 0; ii is the input number (01 through 08); and o is the output number (1 or 2).

The following are Audio Switch Control Commands that will be used most often in WireReady32:

- \*0iio Apply input "ii" to output "o"
- \*0E End overlap
- \*0iiMA Mute input "ii" for all outputs
- \*0iiMo Mute input "ii" for output "o"
- \*0Mo Mute output "o"
- \*0MA Mute all outputs

(NOTE: you would rarely send only a string in the format \*uiio when using overlap mode. See the examples below for the more-common strings.)

Example of a ComTalk string command in WR32. Carriage returns are not required in the commands for this switcher.

- \*0012\*0E This will send the audio from input 1 to output 2 and end the overlap.
- \*0041\*0E This will send the audio from input 4 to output 1 and end the overlap.

To overlap two sources through a single output, send two commands in one ComTalk: \*uiio\*uiio. For example, \*0011\*0031 would overlap audio inputs 1 and 3 through audio output 1; and any audio that was previously going through audio output 1 will be removed from audio output 1. You would use this type of command when playing a jingle that overlaps with a satellite network's audio.

Often, you will want only one audio source on each audio output. To do this on overlap mode (the recommended mode), you need to end overlap, using the command \*0E. An example of this is \*0031\*0E, which would send audio input 3 through audio output 1; and any audio that was previously going through audio output 1 will be removed from audio output 1.

Sometimes, you will want two audio sources overlapping for a specific period of time. You would do this using the end overlap command. When using the end overlap command, the string is in the format \*uiiEott. This sends input number ii (01 through 08) through output number o (1 or 2). The audio of input ii is overlapped with the audio that was previously going through audio output o, then this overlap ends after tt tenths of a second, leaving only audio input ii going through audio output o. U is the unit id, which is normally 0. For example, \*003E125 would send audio input 3 through audio output 1, overlapping for 2.5 seconds. You might use this type of command when switching from a news network to a satellite network, where one or both of them plays a music bed. By having a slight overlap, the transition might sound better than a sudden change of sources. With this specific example, you would probably have a short overlap time, such as half a second, so the command would be \*003E105.

## Detecting Closures

To allow WireReady32 to detect closures from the SS16.4, a setting must be changed in the WireReady32 user's configuration file. This file is wire\users\[username]\[username].ini, where [username] is the WireReady32 user. If there is not already a section [PIP1] add it, and add a line Port=X, replacing "X" with the COM port number, such a "3" for com3. If there is already a section [PIP1], edit the Port= line, making it Port=X, replacing "X" with the COM port number, such a "3" for com3.

Closures detected on the PIP should be connected as described in the Broadcast Tools manual. DIP Switch SW24-8 must be set to On for PIP to function properly. The PIP on the SS16.4 accepts 24 input closures on the 25-pin port. NOTE: Page 22 of the Broadcast Tools manual dated 01/12/2004 shows the connector legend for the rear of the SS 16.4. The page number might be different in different versions of the Broadcast Tools manual.

The channels on the PIP of the SS 16.4 are channels P1-A through P1-X. These correspond with the PIP numbers as listed in the Broadcast Tools manual: P1-A is PIP1; P1-B is PIP2, etc, through P1-X being PIP24.

The PIP channels can be used with the Wait for Channel and If Channel commands, and can be set as stop channels in the Record By Name/Code command. Refer to the WireReady32 Automation manual for details on how to use these commands.

To set the aliases for the PIP channels, open the user's ini file. Do a search/find, and have it search to find "PIP" until it gets to the group [PIP]. If this group does not exist, running the WireReady32 program and opening the Automate screen will write the group to the ini file.

Under the [PIP] group, enter the aliases for the closures that will be used. Save and close the user's ini file.