



Logitek Application Note Building Intercoms

*Applies to all Audio Engines and JetStreams.
Last updated 15 June 2011.*

Theory of Operation

In order for Studio A to talk to Studio B:

Route Studio A's microphone into Talkback Return 2 in Studio B. (If Studio A is on a different engine, Studio A's talkback microphone must be on the network so it will appear as a source on Studio B's engine.)

In Studio B, turn on bus 3 on the Monitor In (port 1: device 24, port 2: device 4c, port 3: device 62). This dims the audio in the monitors and puts the source routed above in Talkback Return 2 into the monitor speakers and headphones.

There is also an Intercom Out bus for the Monitor Input (port 1: device 24, port 2: device 4c, port 3: device 62). This is bus 5, and will dim the speakers when turned on. This is used in the calling studio (in this example, Studio A) so the person there has confidence that the intercom is on as well as cutting down on background noise while the operator talks.

By default, intercom is not routed to the Studio monitor feed, which is frequently used to feed guest headphones. If you wish to insert intercom audio into this feed, bus 2 should be turned on for Studio In (port 1: device 23, port 2: device 4b, port 3: device 61) as part of the init trigger.

By default, intercom is inserted into the Headphones In (port 1: device 25, port 2: device 4d, port 3: device 65). Some stations do not want the host to be interrupted while on mic, therefore this can be blocked by turning on bus 3 for Headphones In.

Command Builder Examples

First, a demonstration of the init trigger to allow intercom to be inserted into the Studio Monitors and to block intercom from being inserted into the headphones while the monitors are muted. In all examples, text after the tilde (~) is a comment and ignored by Command Builder.

```
trigger init
    cmd ae1 d[Port1 Headphones In] bus 3 on ~ block intercom on monitor mute
    cmd ae1 d[Port1 Studio In] bus 2 on ~ allow intercom insertion
```

Studio A intercom to Studio B on

For this example, we will assume that a Remora console is being used, and the top bridge button (the white buttons on the side of the 4 fader module) is being used to turn the intercom on. The button will be used in a push-to-talk manner.

```
trigger ae1 surface 1 bridgebutton 1 on
    cmd ae1 surface 1 bridgelamp 1 on ~ turn on the lamp in Studio A
    cmd ae2 surface 1 bridgelamp 1 on ~ turn on the lamp in Studio B
    cmd ae2 route s[Studio A Mic 1] to d[Port1 Talkback Rtn 2]
    cmd ae1 d[Port1 Monitor In] bus 5 on ~ Intercom Out Active (dims monitors)
    cmd ae2 d[Port1 Monitor In] bus 3 on ~ Intercom In Active (dims monitors and inserts audio)
```

Studio A intercom to Studio B off

Now, to return everything to normal when the button is released:

```
trigger ae1 surface 1 bridgebutton 1 off
cmd ae1 surface 1 bridgelamp 1 off ~ turn off the lamp in Studio A
cmd ae2 surface 1 bridgelamp 1 off ~ turn off the lamp in Studio B
cmd ae1 d[Port 1 Monitor In] bus 5 off ~ Intercom Out not active (undims monitors)
cmd ae2 d[Port 1 Monitor In] bus 3 off ~ Intercom In not active (undims monitors, stops inserting audio)
```

For Studio B to talk to Studio A, we essentially reverse the process. Here is the trigger for intercom on:

```
trigger ae2 surface 1 bridgebutton 1 on
cmd ae1 surface 1 bridgelamp 1 on ~ turn on the lamp in Studio A
cmd ae2 surface 1 bridgelamp 1 on ~ turn on the lamp in Studio B
cmd ae1 route s[Studio B Mic 1] to d[Port1 Talkback Rtn 2]
cmd ae2 d[Port1 Monitor In] bus 5 on ~ Intercom Out Active (dims monitors)
cmd ae1 d[Port1 Monitor In] bus 3 on ~ Intercom In Active (dims monitors and inserts audio)
```

Here is the trigger for intercom off:

```
trigger ae2 surface 1 bridgebutton 1 off
cmd ae1 surface 1 bridgelamp 1 off ~ turn off the lamp in Studio A
cmd ae2 surface 1 bridgelamp 1 off ~ turn off the lamp in Studio B
cmd ae2 d[Port 1 Monitor In] bus 5 off ~ Intercom Out not active (undims monitors)
cmd ae1 d[Port 1 Monitor In] bus 3 off ~ Intercom In not active (undims monitors, stops inserting audio)
```