

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

SOFTWARE USER GUIDE



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ENNIS, TEXAS 75119 U.S.A.

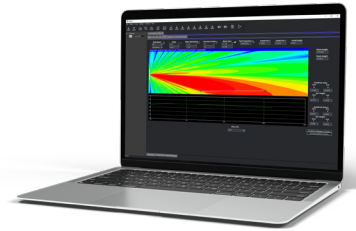
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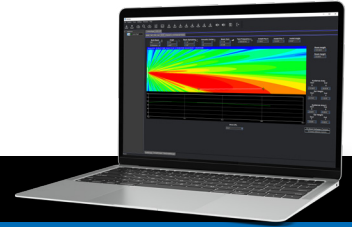
OVERVIEW

This user manual focuses on connecting and configuring devices in the Aimline software application including networking, DSP, individual control, group control, settings export/import, and more.

Detailed hardware installation, along with instructions to cascade multiple ALX-D modules, is covered in the [Aimline ALX-D Installation Guide](#).

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PREPARING WINDOWS PC FOR AIMLINE NETWORK CONNECTIVITY

- Connect your Windows computer to the Ethernet port DATA-IN of the leader (primary/bottom) ALX-D module using a standard Cat5e cable. For configuration of systems with more than one ALX-D loudspeaker, use a network switch.
- The factory default setting of the ALX-D is set to a fixed IP-address 192.168.10.10.
- Set your PC network adapter to a fixed IP address in the range: 192.168.10.XX (Figure 1).

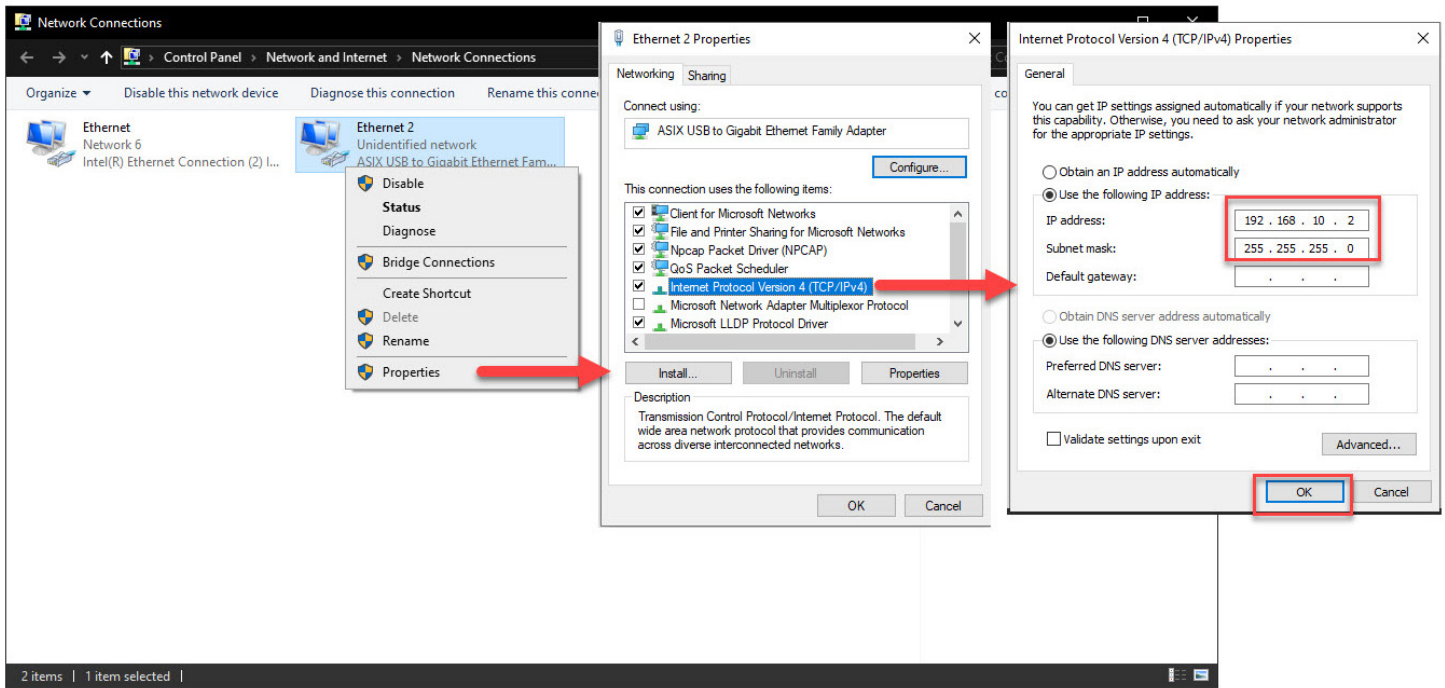
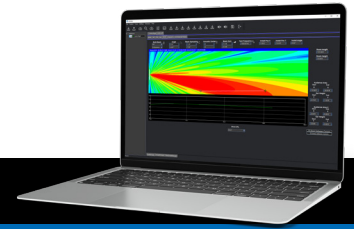


Figure 1

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CONNECTING LOUDSPEAKERS TO AIMLINE SOFTWARE

Discovering Aimline Loudspeakers

- Open the AIMLINE application.
- Right-click the **Interfaces** item then select **Scan Network** (Figure 2).

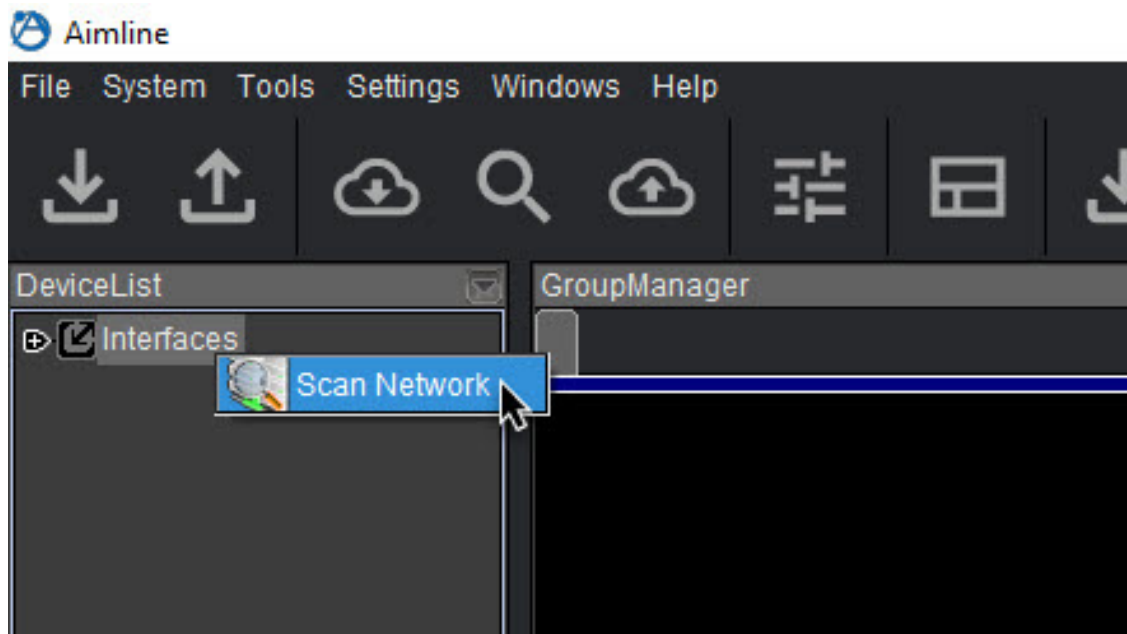


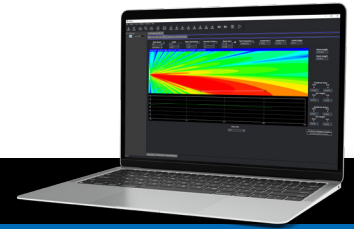
Figure 2

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CONNECTING LOUDSPEAKERS TO AIMLINE SOFTWARE (CONTINUED)

- Ensure the IP Range (top right) is set to appropriate values within the same range as the Aimline default, such as 192.168.10.1 – 192.168.10.100 (Figure 3).
- Click **Start Scanning** and the tool will search for Aimline loudspeakers within the IP range.

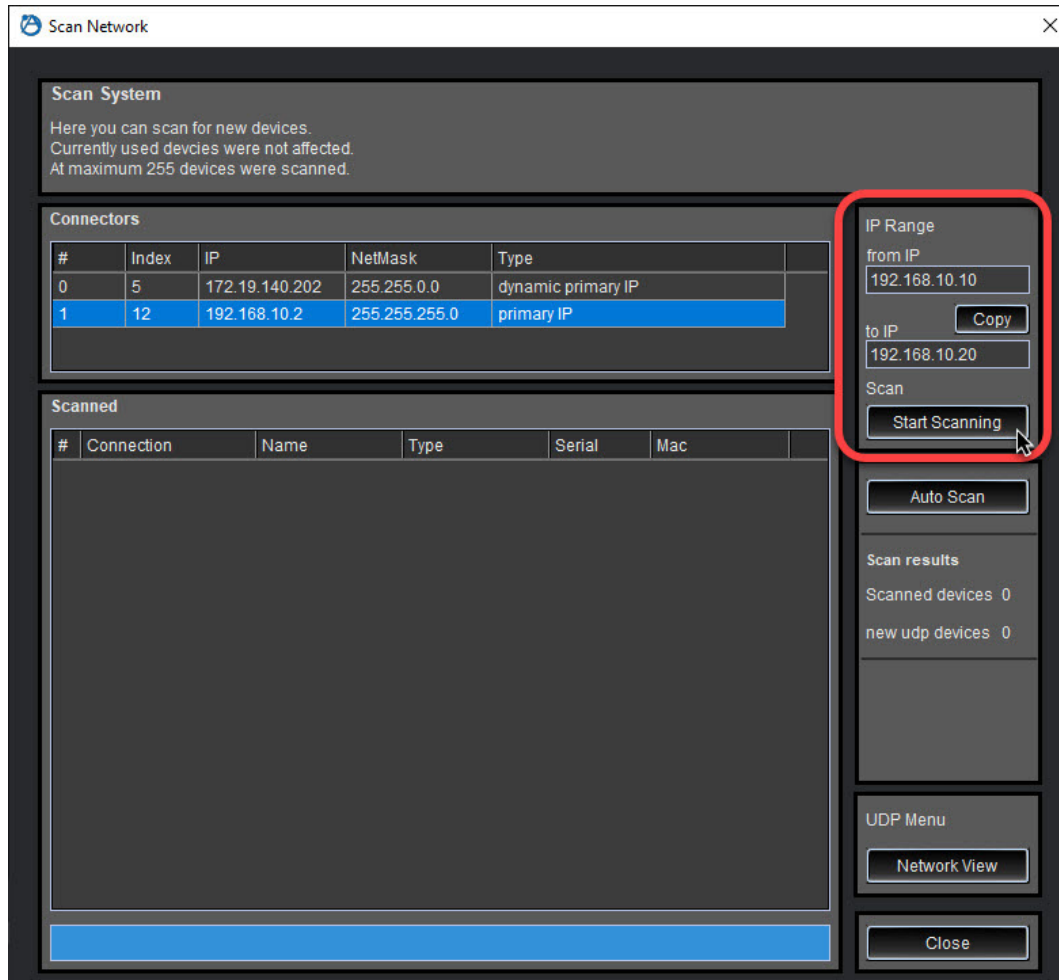


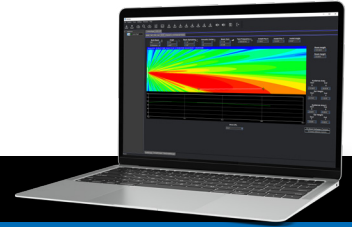
Figure 3

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CONNECTING LOUDSPEAKERS TO AIMLINE SOFTWARE (CONTINUED)

- Discovered items will now appear in the Scanned list. To add the discovered devices to your project, click **Add All** (Figure 4). The scan window will be closed and the devices added for configuration.

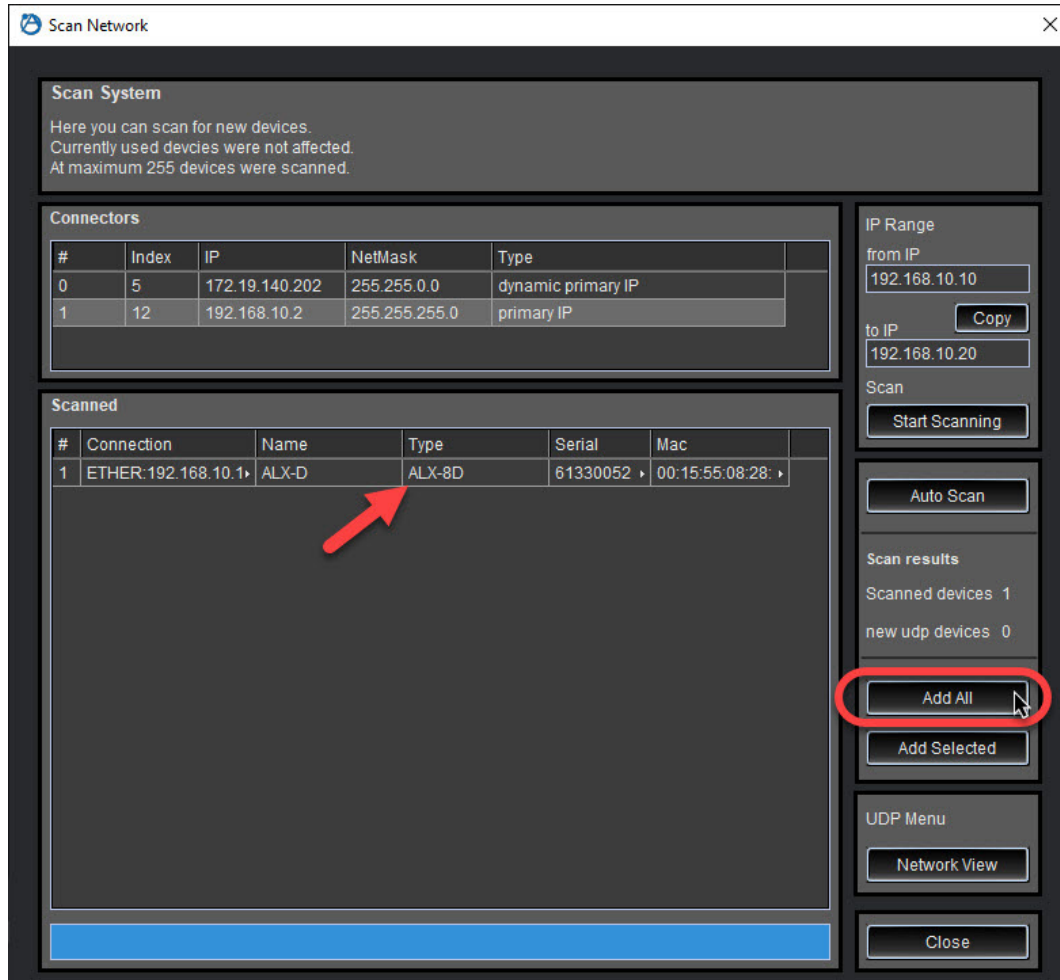


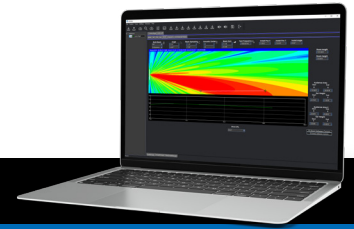
Figure 4

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CONNECTING LOUDSPEAKERS TO AIMLINE SOFTWARE (CONTINUED)

- The added devices will now appear in the **DeviceList** section on the left and will show a green indicator when connection is valid (Figure 5).

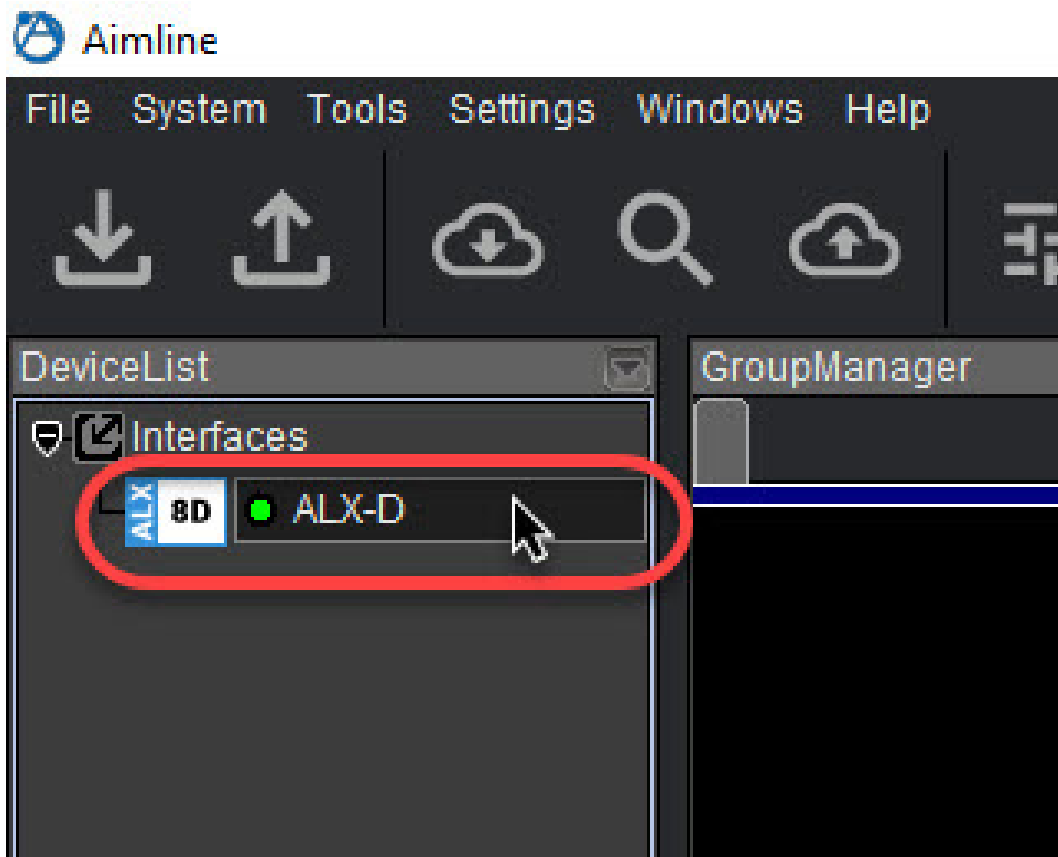
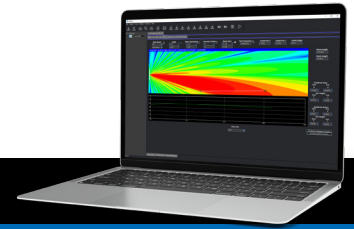


Figure 5

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CHANGING IP ADDRESS OF AIMLINE LOUDSPEAKER

- It is possible to change the IP address of the loudspeaker to an alternate static IP address. To change the default IP address of the loudspeaker, click **Network View** from the Tools menu at the top (Figure 6).

Note: A static IP address must be selected, DHCP is not supported for device communication.

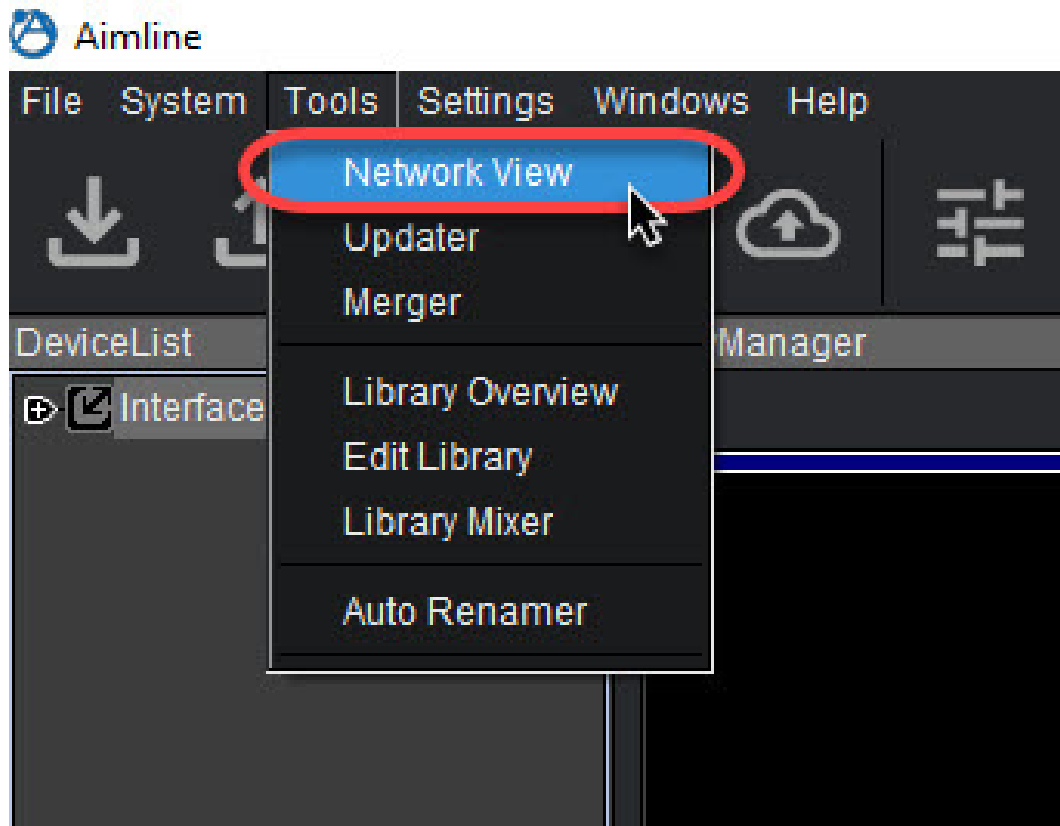


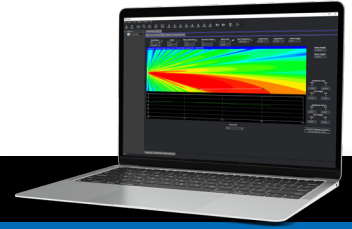
Figure 6

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CHANGING IP ADDRESS OF AIMLINE LOUDSPEAKER (CONTINUED)

- In the Network View tool, ensure the appropriate network adapter is selected in the top table (Figure 7).
- When the device appears in the list, double-click the IP address you wish to change.

Note: If the device does not appear be sure to disable your computer's firewall. This operation uses broadcast messages and may be blocked by some network security software.

Network View

#	Index	Adaptor IP	NetMask	Type	Set	Range	Scan Range	Select
2	19	172.31.12.2	255.255.255.0	dynamic primary IP	172.31.12	1:255	172.31.12.1:255	<input type="checkbox"/>
3	21	192.168.56.1	255.255.255.0	primary IP	192.168.56	1:255	192.168.56.1:255	<input type="checkbox"/>
4	68	172.30.32.1	255.255.240.0	primary IP	172.30.32	1:255	172.30.32.1:255	<input type="checkbox"/>
5	17	169.254.154.138	255.255.0.0	primary IP	169.254.0	1:255	169.254.154.1:255	<input type="checkbox"/>
6	13	10.2.150.5	255.255.255.0	primary IP	10.2.150	1:255	10.2.150.1:255	<input checked="" type="checkbox"/>

#	IP	IP Validity	Name	Device	Mac	Ti	Select	Signal	Recv	IP Change Status	Module	
1	10.2.150.222	Valid	ALX-D series	AtlasIED	00155508D088	15	<input type="checkbox"/>	[▶▶]				Single

Non-AtlasIED Devices

Select Device

None

Group IP Change

Auto

Expert

Close Window

Close

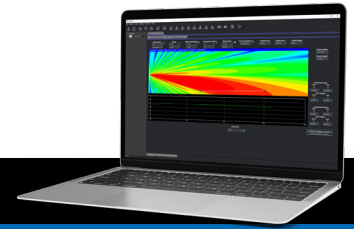
Figure 7

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CHANGING IP ADDRESS OF AIRLINE LOUDSPEAKER (CONTINUED)

- In the window that appears, change the IP address to the desired value, then click **OK** to save (Figure 8). The device will need a reboot for the new settings to apply and may require a rescan of the network.
- For larger columns that are created by cascading multiple modules together (ALX-16D and larger), only the leader (bottom) module's IP address can be accessed and changed. Each cascaded follower module will obtain the same IP address as the leader module incremented by 1. For example, if the leader module is set to 192.168.10.21 the cascaded modules will end in .22, .23, .24, and so on. This can be seen later in the Network view.

Note: Every module will have an IP address on the network.

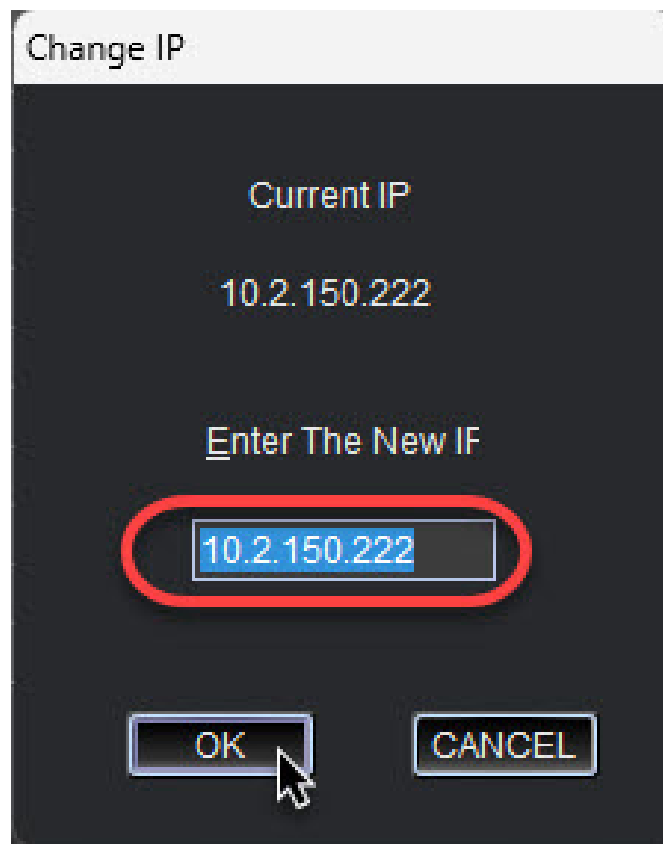
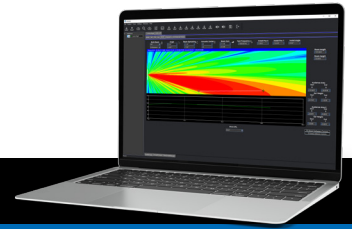


Figure 8

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RENAMING A LOUDSPEAKER

- Each device can be renamed for easy management and organization of your system. To rename a device, double-click the device in the **Interfaces** section and give your loudspeaker a new name (Figure 9). Duplicate names are not allowed and will be prevented.

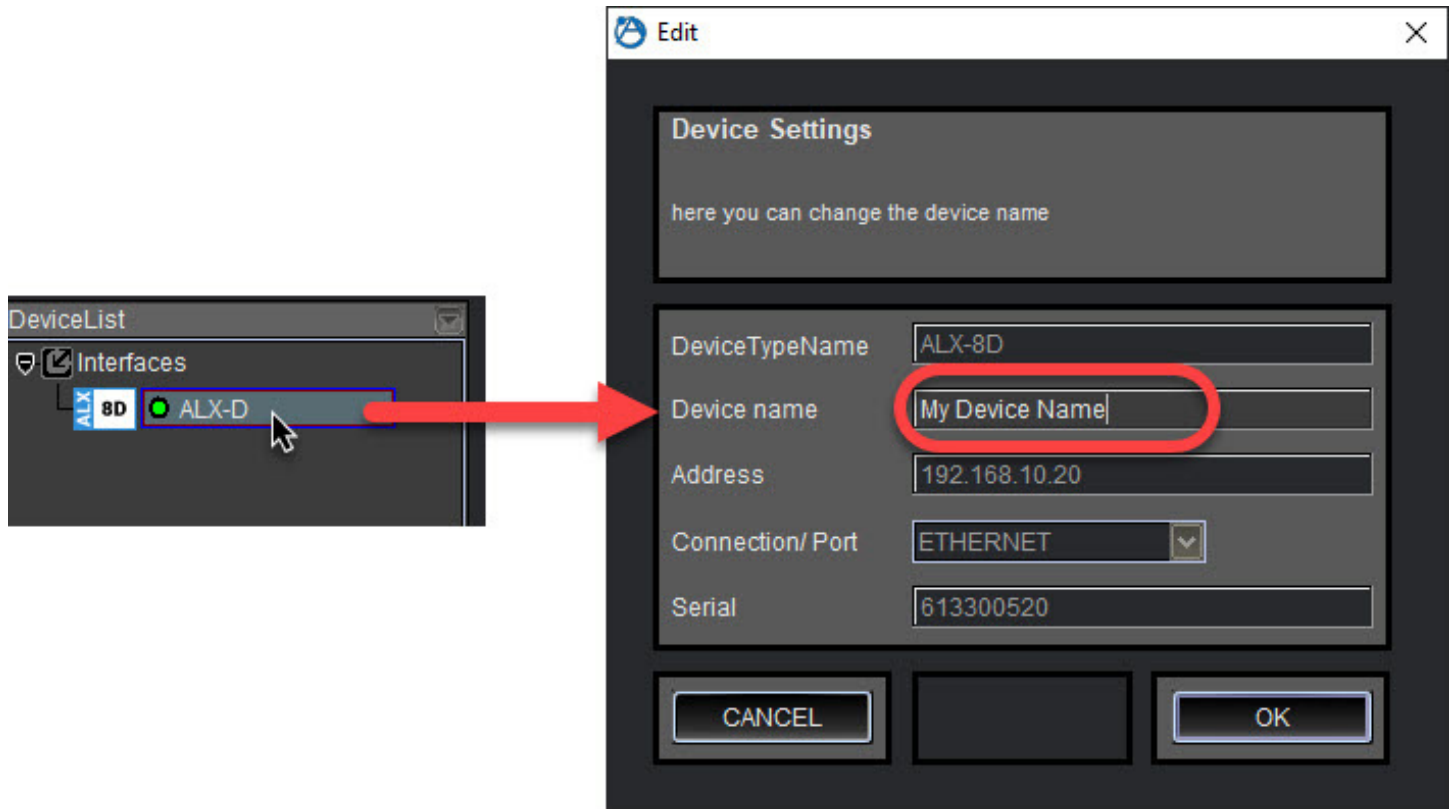
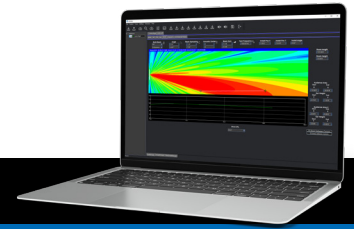


Figure 9

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RECONNECTING AIMLINE LOUDSPEAKER TO NETWORK

- If the connection between Aimline software and one or more devices is lost, the indicator next to the device in the **Interfaces** list will turn red (Figure 10). Connection loss is usually caused by removing power from the device or loss of network connection.

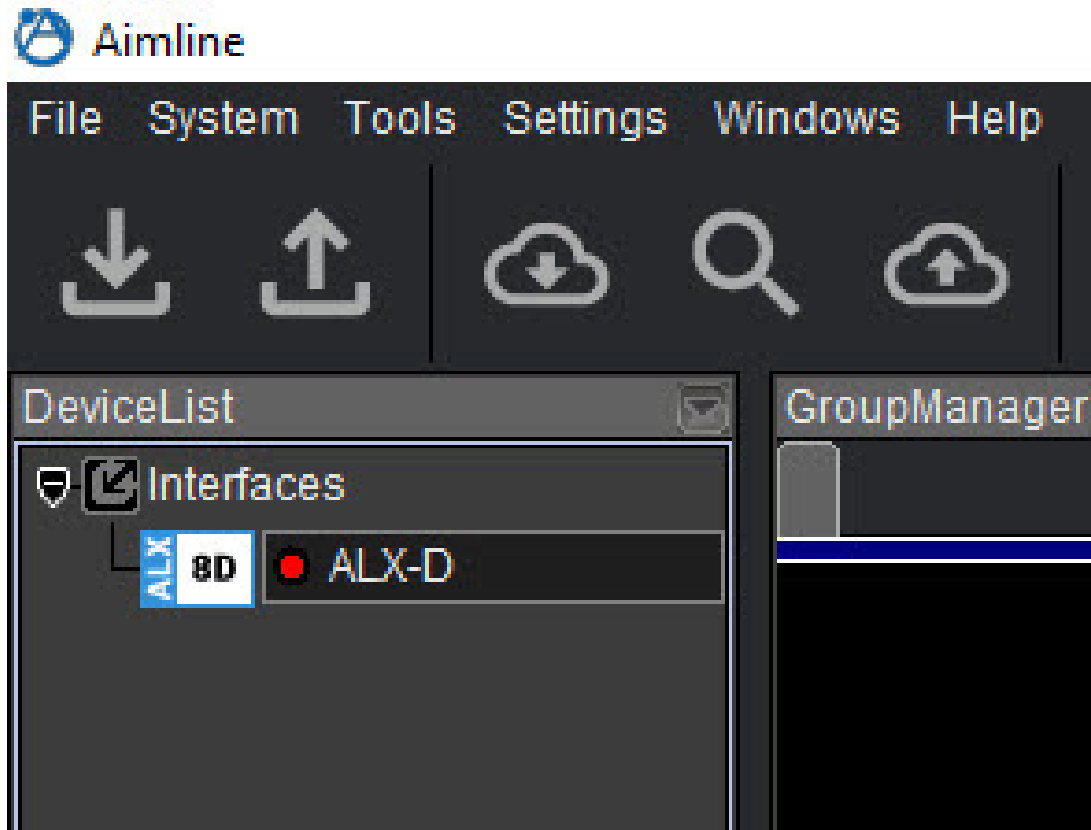


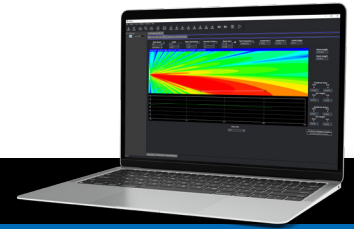
Figure 10

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RECONNECTING AIRLINE LOUDSPEAKER TO NETWORK (CONTINUED)

- To reconnect once power/network connection has been restored, right-click the loudspeaker and select **Reconnect** (Figure 11). The indicator will turn from red to green when connection is reestablished.

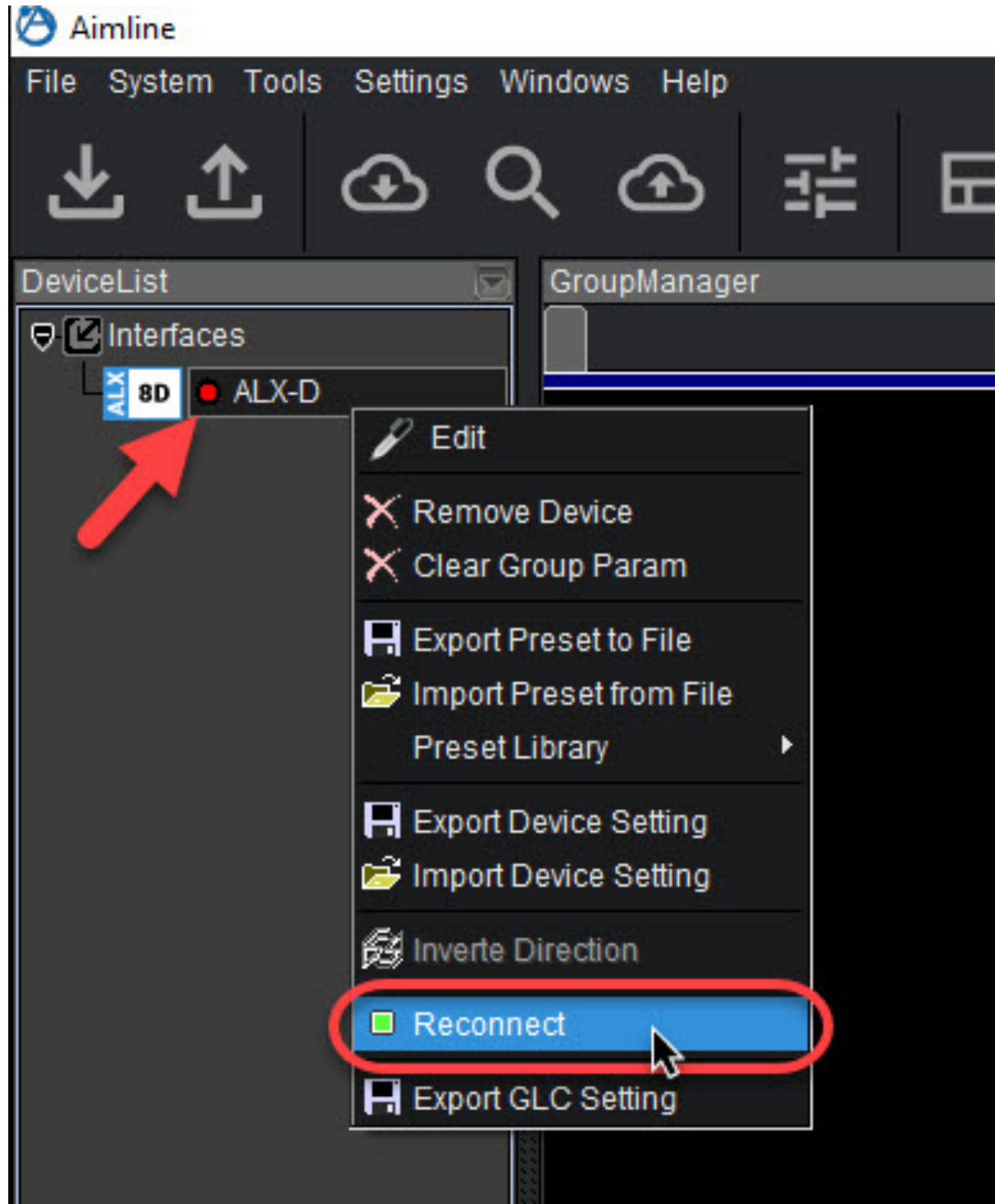
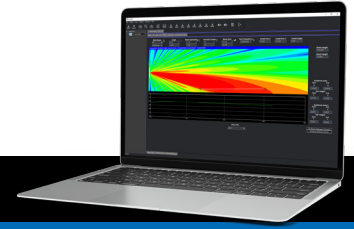


Figure 11

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DEVICE MANAGER (LOUDSPEAKER SETTINGS)

- To view and configure device settings, highlight the desired device in the **Interfaces** list, and click the **DevManager** tab to view the settings for that device (Figure 12).

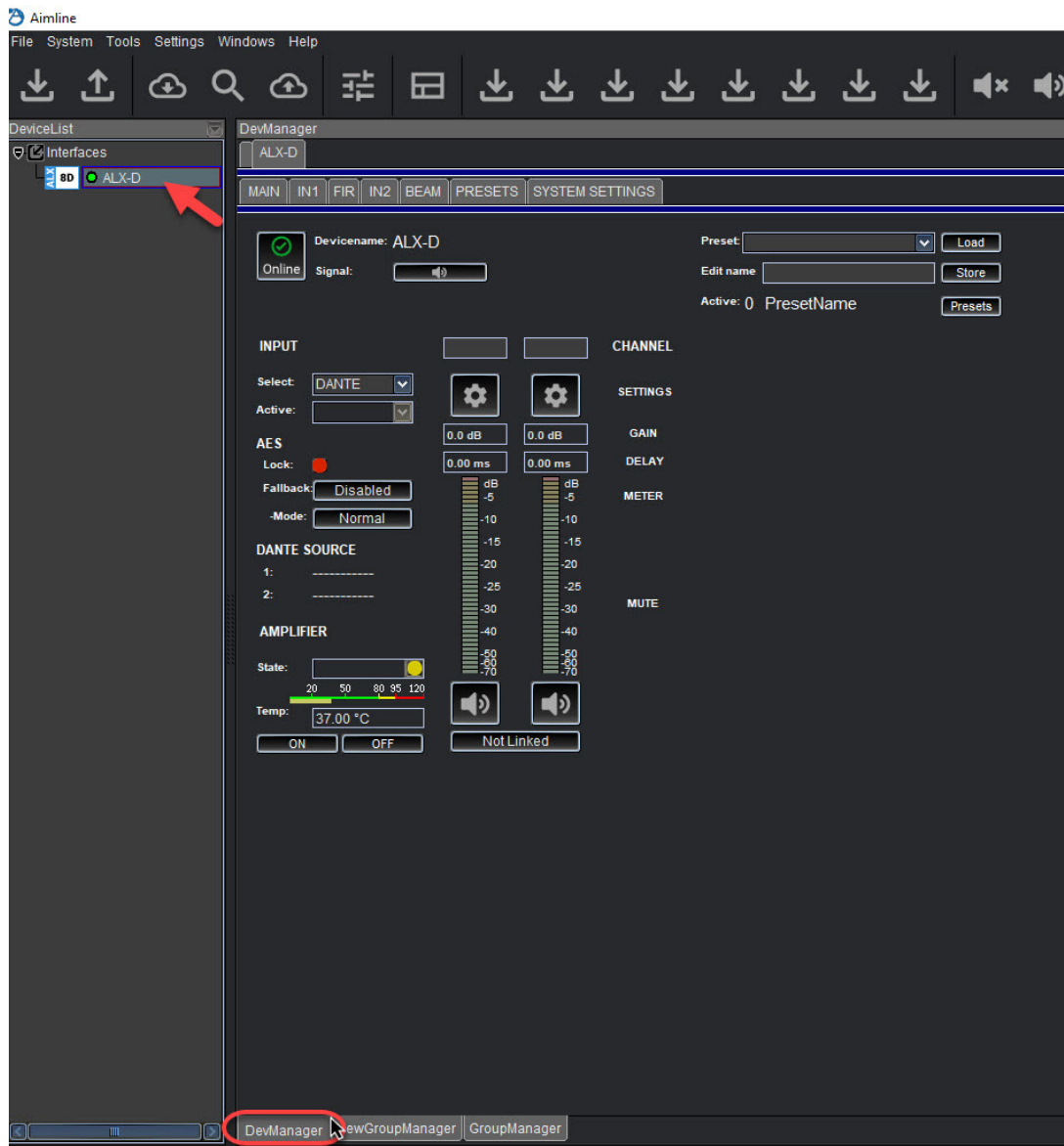


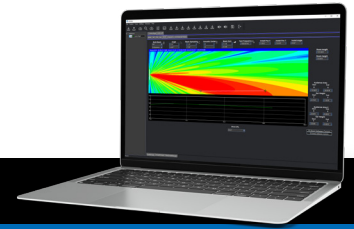
Figure 12

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

- The **DevManager** window includes tabs for each loudspeaker configuration and control options (Figure 13). The ALX-D consists of the following tabs:
 - Main
 - In1 (EQ)
 - FIR
 - In2 (EQ)
 - Beam
 - Presets
 - System Settings
 - System
 - Amp Test

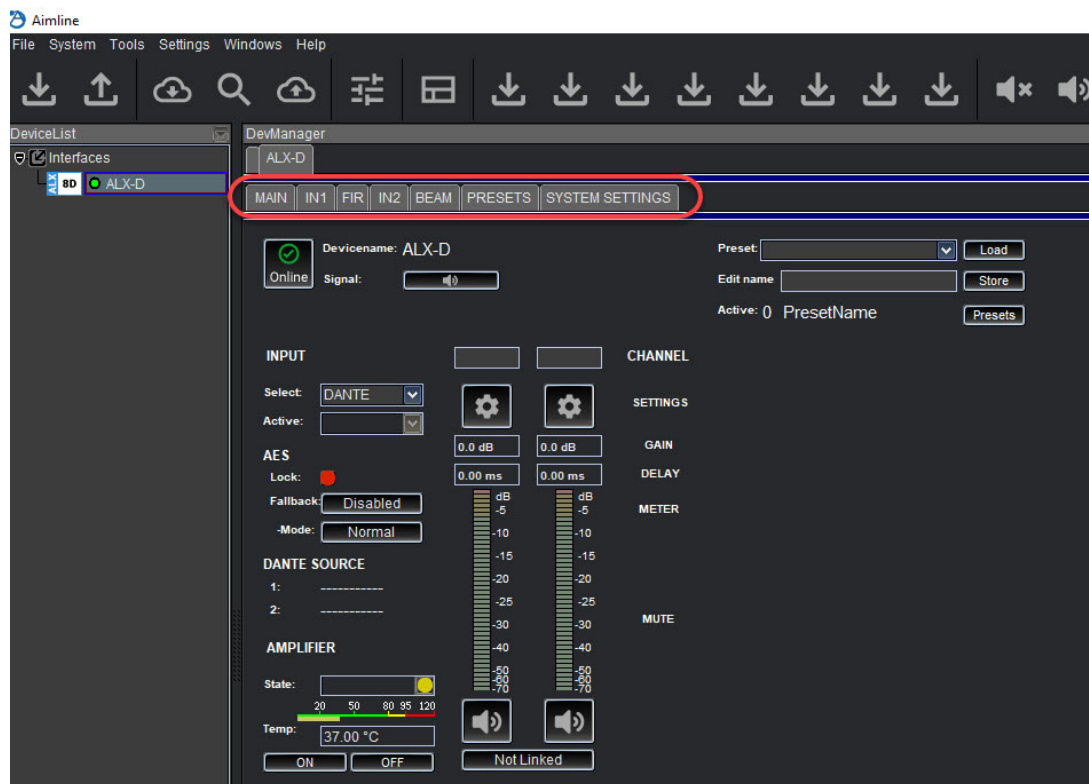


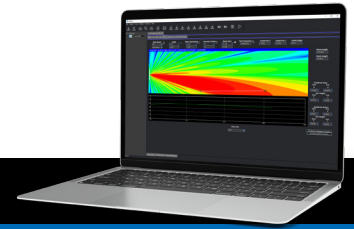
Figure 13

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

Main tab

- The **MAIN** tab offers an overview of the device settings and gives direct access to Mute, Source Select, and channel linking (Figure 14).

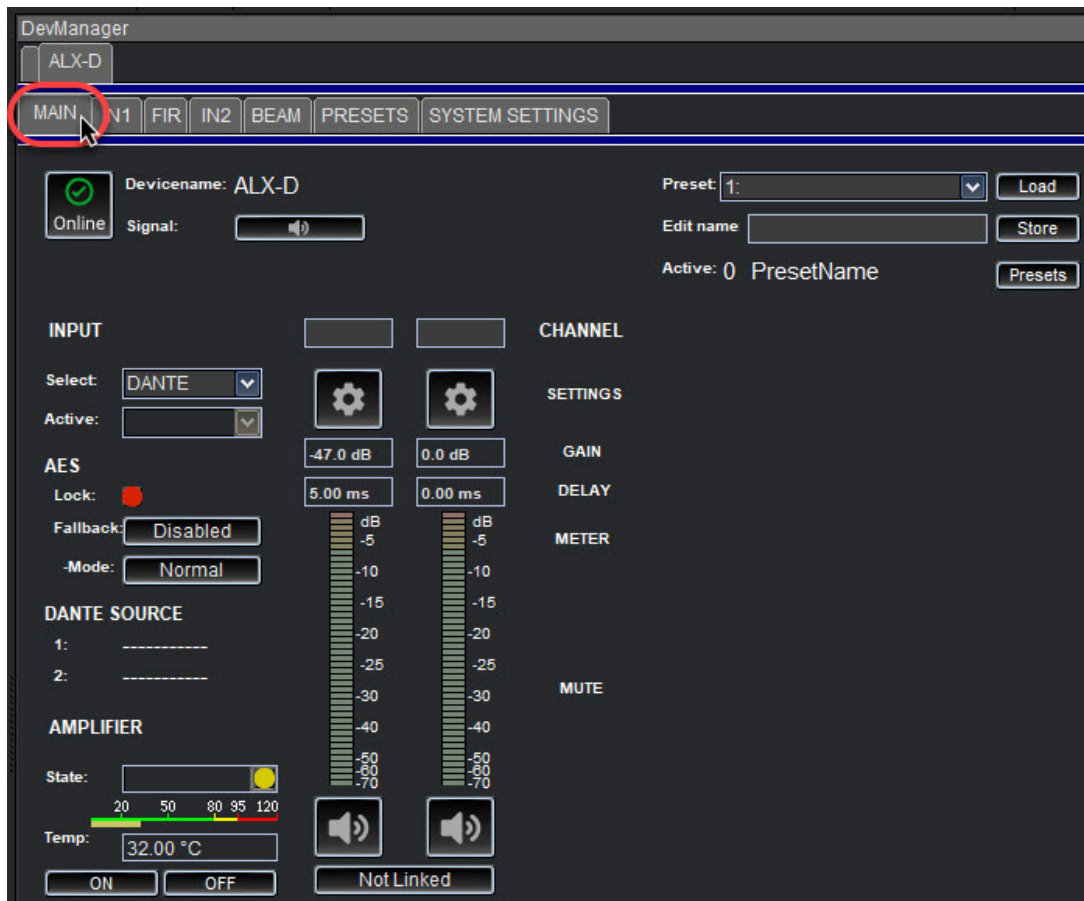


Figure 14

Input

- Select between Analog, Dante, and AES input signals.

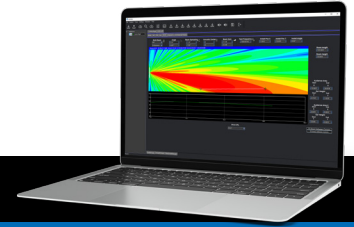
Signal

- The signal button, when pressed, flashes a blue "locate" indicator behind the loudspeaker grille to the right of the square AtlasIED badge at the bottom.
- To change the length of time the LED flashes, go to the System Settings tab.

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

AES

- **Lock:** The Lock indicator shows PLL lock for the AES input.
 - Red = No PLL lock
 - Green = PLL lock obtained
- **Fallback:** The Fallback function allows the AES signal to be used as an automatic backup when the Selected source loses signal and there is signal detected on the AES input. Pressing the Fallback button will switch between Disabled and Enabled.
 - Enabled: Automatically switch from selected source to AES source when the selected source has no signal, and the AES source does have a signal.
 - Disabled: No automatic source switchover.

Amplifier

- **Temp:** The temperature indicates the internal temperature of the amplifiers
- The amplifier can be turned on or off by clicking the respective On / Off buttons. When clicking the On button, allow 3 seconds for normal operation to resume.

Channel

- **Name:** The channel name appears for each of the two loudspeaker inputs. This name can be changed by clicking the textbox and entering a new name. This name field is duplicated on the associated In1 / In2 tabs.
- **Gain:** Read-only indication of summary input gain. This value is a summation of the device gain (from In1 / In2 tabs) as well as any Group gain applied.
- **Delay:** Read-only indication of summary input delay. This value is a summation of the device delay (from In1 / In2 tabs) as well as any Group gain applied.
- **Meter:** Input audio meter readings are displayed in the vertical meter. This input meter is unaffected by output gain. This meter indicator is duplicated on the associated In1 / In2 tabs.
- **Mute:** Output channel mute buttons. Click the button to toggle between mute (red) and unmute (gray). This mute button is duplicated on the associated In1 / In2 tabs and will follow the Group mute state, if applicable.
- **Link:** The link button toggled between Linked and Not Linked states. When linked the Gain, Mute, and EQ controls made to one channel will be applied to the other.

Presets

Presets allow for all device settings to be easily stored and recalled. Each device can store up to 24 presets. See later sections regarding the Presets tab and recalling presets via UDP commands.

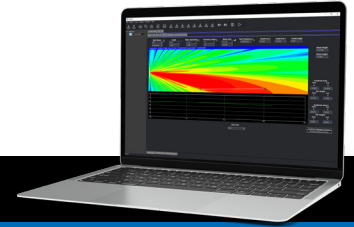
- **Preset dropdown:** Use the dropdown to select one of 24 preset slots.
- **Load:** Pressing the load button will recall the settings of the selected preset slot.
- **Store:** Clicking the Store button will save the current device settings to the currently selected preset slot. Use the Edit Name input field to give this preset a name before storing.
- **Active:** The currently selected preset is displayed.

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

In1 / In2 tabs

The **In1** and **In2** tabs provide access to Input Gain, Delay, and EQ settings (Figure 15). Adjustments are made in real-time and can be heard instantaneously. The inputs can be linked in the Main tab. With the inputs linked both channels will receive the same filter settings.

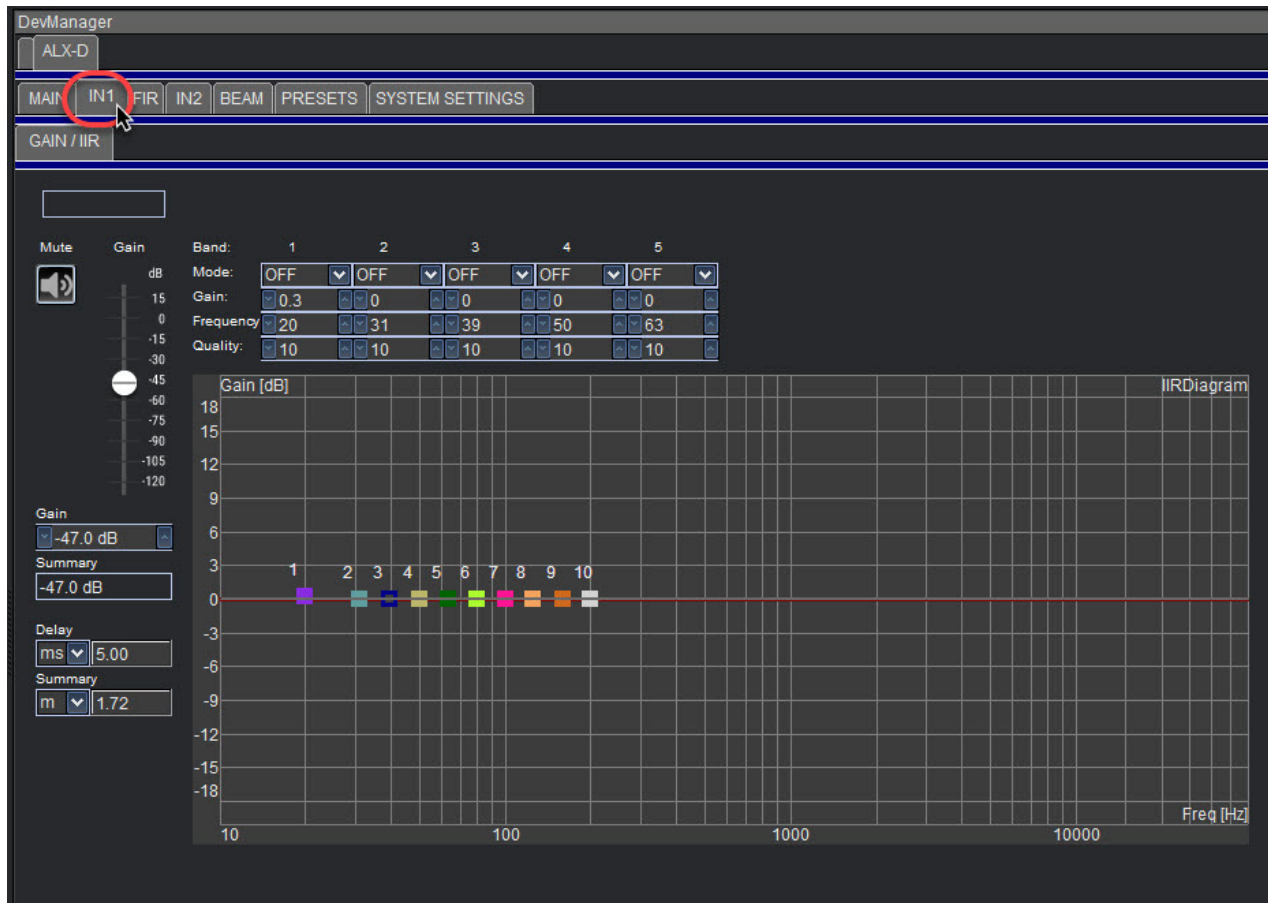


Figure 15

Filter Band Mode

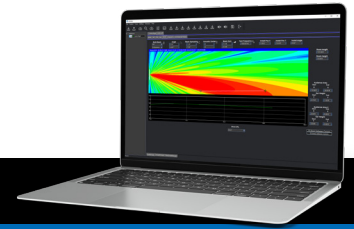
Each input has up to 5 filters that can be applied.

- **Off:** Filter band disabled
- **EQ:** Allows a PEQ to be applied
- **HP:** High Pass filter
- **LP:** Low Pass filter
- **H-SH:** High Shelf filter with fixed Q
- **L-SH:** Low Shelf filter with fixed Q
- **H-SHQ:** High Shelf filter with adjustable Q
- **L-SHQ:** Low Shelf filter with adjustable Q
- **ALLP 1:** All Pass filter 1
- **ALLP 2:** All Pass filter 2

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

Filter Band Gain

- Apply up to +/-15dB of gain to the associated filter band.
- Use up/down arrows to increase by 1dB or type in values in 0.1dB increments.

Filter Band Frequency

- Select the center frequency of the associated filter band.
- The range of the center frequency can be set between 20 – 20,000Hz.
- Use up/down arrows to increment frequency or type in a desired frequency.

Filter Band Quality (Q)

- Change the Q of the associated band to widen or narrow the filter.
- The range of Q can be set between 0.5 (wide) and 10 (narrow).
- Use the up/down arrows to raise and lower the Q value, or type in a desired Q value in increments of 0.001.

Input Channel Name

- The channel name appears for each of the two loudspeaker inputs. This name can be changed by clicking the textbox and entering a new name.
- This name field is duplicated on the Main tab.

Input Channel Mute

- Input channel mute buttons. Click the button to toggle between mute (red) and unmute (gray).
- This mute button is duplicated on the Main tab.

Input Channel Gain

- The gain of the input channel can be adjusted using the vertical gain slider, the up/down arrows, or by typing in a gain value
- The range of the gain control is -120dB to +15dB in increments of 0.1dB.
- A read-only indication of this gain value, along with any Group gain, is also shown on the Main tab.
- The Summary gain box indicates the sum of the Input gain and Group gain.

Input Channel Meter

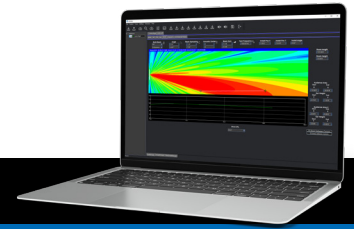
- Input audio meter readings are displayed in the vertical meter. This input meter is unaffected by output gain.
- This mute button is duplicated on the Main tab.

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

FIR tab

- The FIR tab allows for custom FIR filters to be loaded into the input channel for each of the two inputs (Figure 16). A Bypass button allows for the FIR filters to be bypassed to test the effect of the filter.

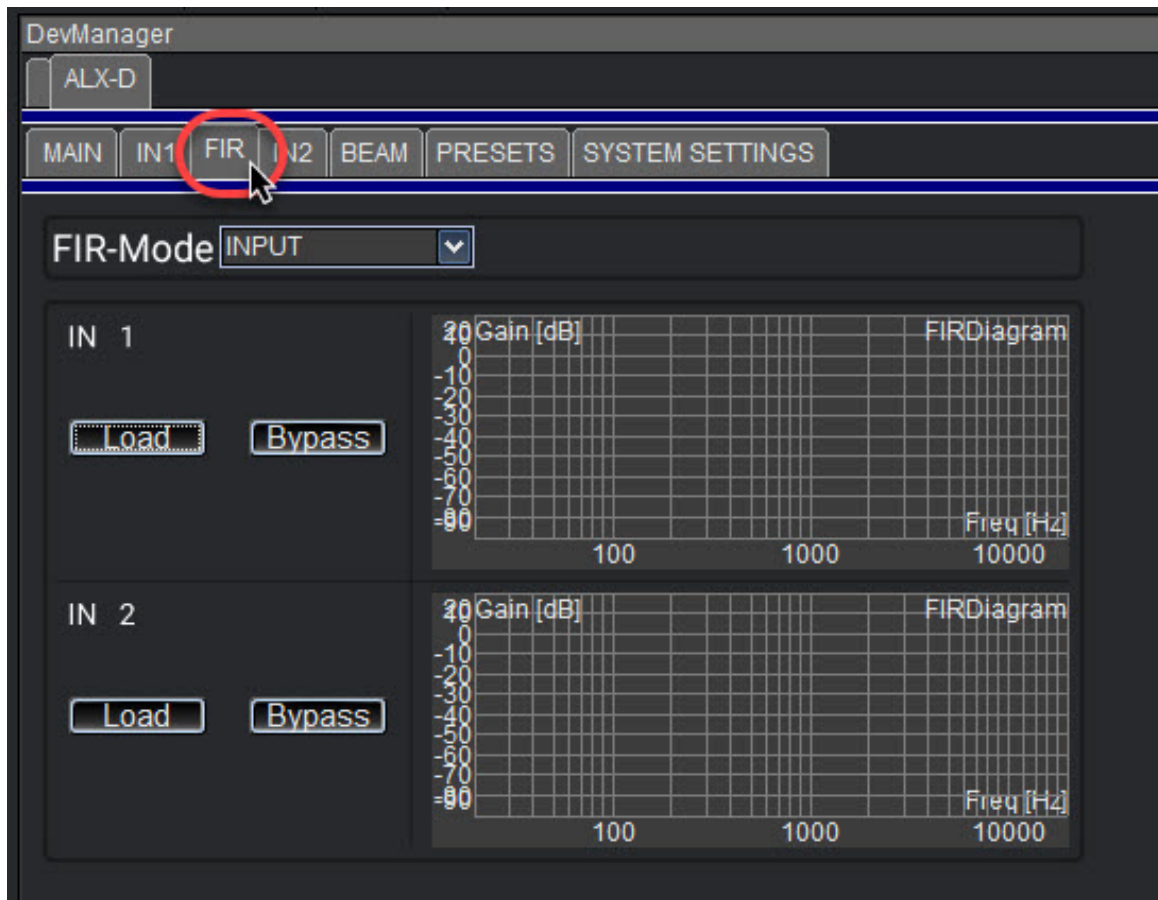


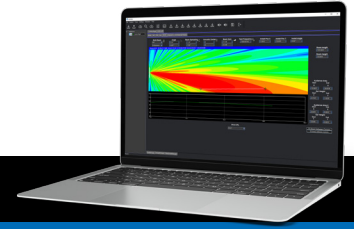
Figure 16

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

Beam tab

- The Beam tab allows for beam steering control of the ALX-D loudspeaker as well as predictive analysis tools to help configure and design the beam steering configuration (Figure 17). The ALX-D can be setup for single or dual-beam operation, and each beam can be configured with the following settings:
 - Angle
 - Beam Spreading
 - Acoustic Center
 - Beam Gain
- The analysis tools allow for predictive analysis of SPL for listening areas based on position of the loudspeaker and listener areas. The tools provided for predictive analysis are:
 - Test Frequency
 - Install Position X
 - Install Position Y
 - Install Angle
 - Room Length
 - Room Height
 - Audience Area 1
 - Area 1 Start X
 - Area 1 End X
 - Ear Height 1 Start Y
 - Ear Height 1 End Y
 - Audience Area 2
 - Area 2 Start X
 - Area 2 End X
 - Ear Height 2 Start Y
 - Ear Height 2 End Y
 - SPL Plot

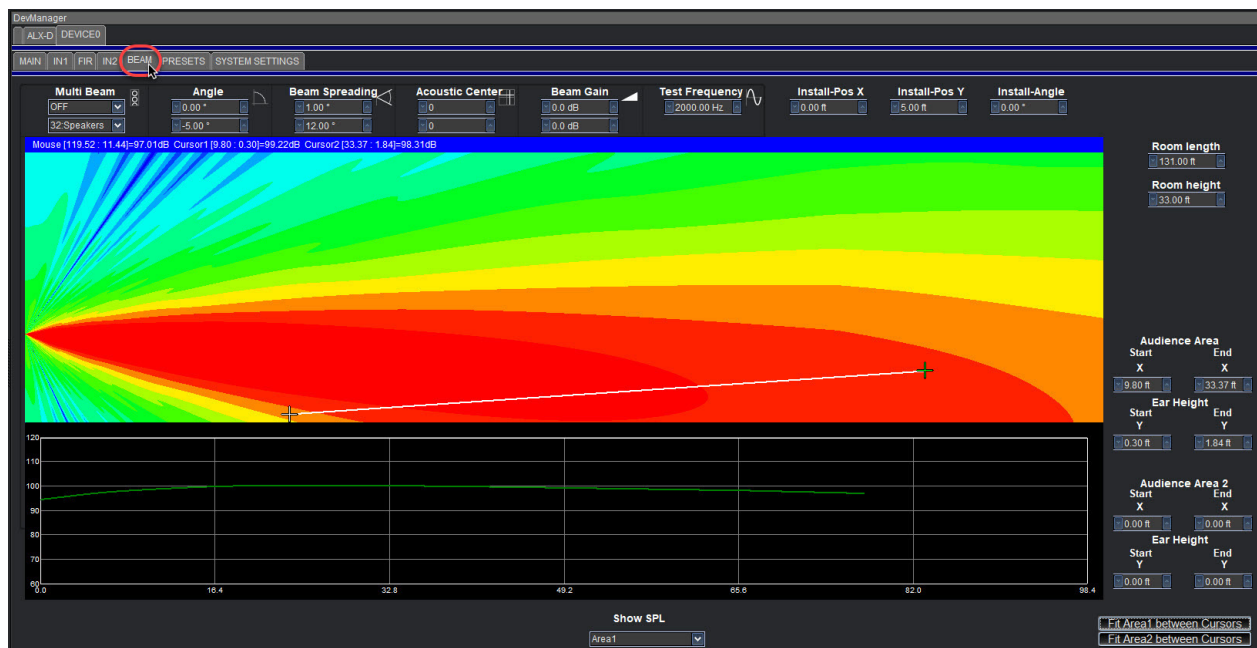
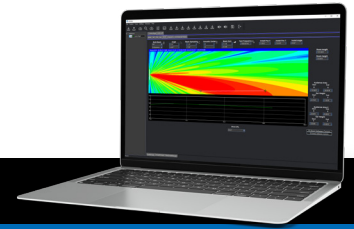


Figure 17

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

Beam tab (continued)

Multi Beam

- Turning on Multi Beam allows the loudspeaker to be split into two beams, often used to split the beam between normal seating and balcony seating, or similar venue configuration (Figure 18).

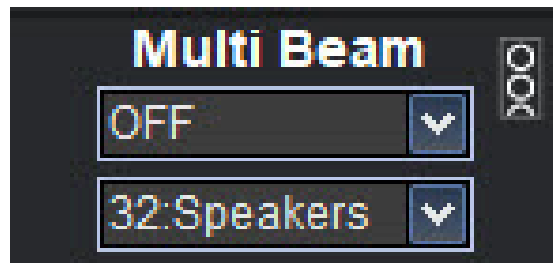


Figure 18

Angle

- Specifies the angle of one or two beams (Figure 19). Using the Down arrow, the acoustical beam moves down; using the Up arrow the acoustical beam moves up.
- Angle can be adjusted between -45° (down) and $+45^{\circ}$ (up).
- If only one beam is activated, use the lower button row.



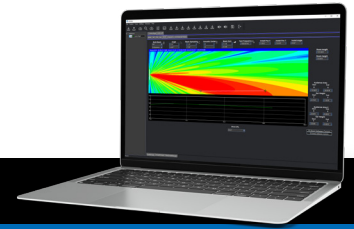
Figure 19

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

Beam tab (continued)

Beam Spreading

- Specifies the opening angle for each beam (Figure 20).
- Beam Spreading can be adjusted between 1° (narrow) to 60° (wide).
- If only one beam is activated use the lower button row.

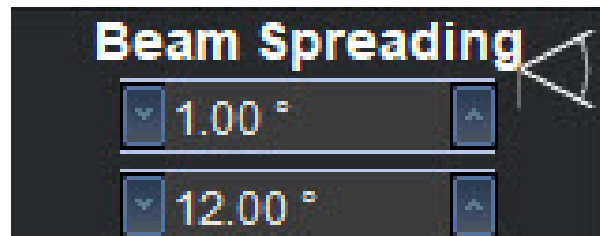


Figure 20

Acoustic Center

- Specifies the acoustical center (Figure 21). This can be moved up and down using the up and down arrows.
- Acoustic Center can be adjusted from -100 (bottom) to +100 (top) in increments of 10.
- If only one beam is activated use the lower button row.

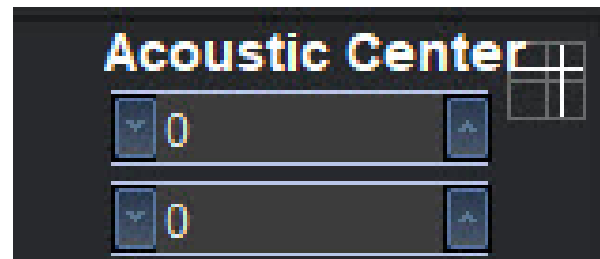


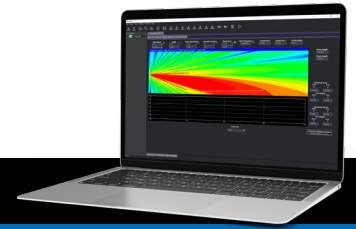
Figure 21

(CONTINUED ON NEXT PAGE)

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

Beam tab (continued)

Beam Gain

- Specifies the Gain (volume) for each beam (Figure 22).
- Beam gain can be adjusted between -30 and +10dB.
- If only one beam is activated use the lower button row.

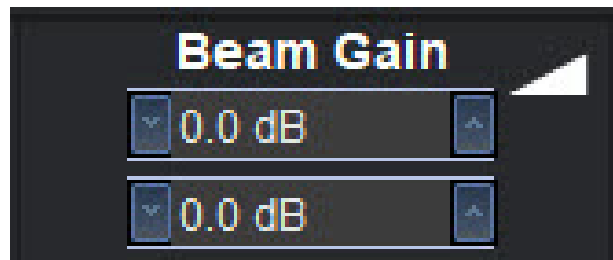


Figure 22

Test frequency

- Specifies the frequency to be used for Beam plot (Figure 23).
- Test Frequency can be adjusted between 1kHz and 8kHz.
- The default setting is 2000Hz.

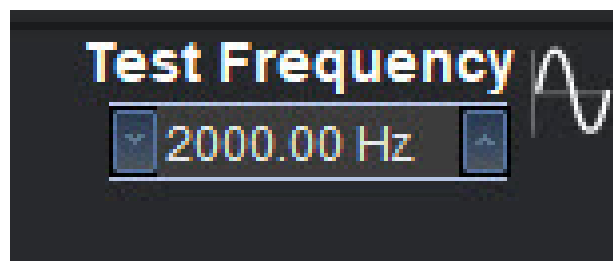


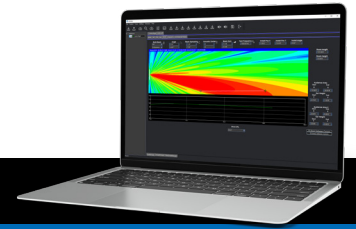
Figure 23

(CONTINUED ON NEXT PAGE)

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

Beam tab (continued)

Install-Pos X

- Enter the install position of the ALX speaker in x-dimension (distance from the wall) (Figure 24).
- The X value will be visible on the Beam plot, moving the speaker left/right within the space.

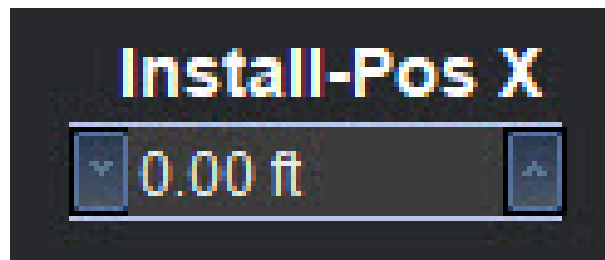


Figure 24

Install-Pos Y

- Enter the install position of the ALX-D loudspeaker in y-dimension (height from the floor to the bottom of the loudspeaker enclosure) (Figure 25).
- Adjusting the Y value will be visible on the Beam plot, moving the speaker up/down within the space.



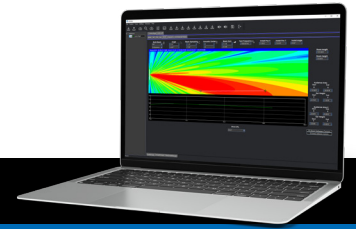
Figure 25

(CONTINUED ON NEXT PAGE)

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

Beam tab (continued)

Install Angle

- Enter the install-angle of the ALX-D loudspeaker if the loudspeaker is mounted at an Angle: down or upwards. When using standard L brackets or surface mount brackets this angle should be set to 0 degrees (Figure 26).
- Adjusting the angle will be visible on the Beam plot angling the loudspeaker up (positive) or down (negative).



Figure 26

Room length

- Enter the room dimensions (length) (Figure 27).
- Adjusting the room length will automatically scale the Beam plot length (X axis) to match the room length.



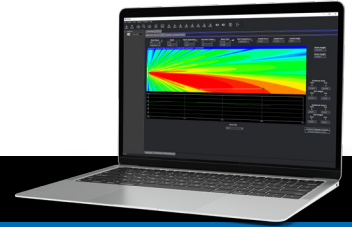
Figure 27

(CONTINUED ON NEXT PAGE)

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COLUMN ARRAY LOUDSPEAKERS

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

Beam tab (continued)

Room height

- Enter the room dimensions (height) (Figure 28).
- Adjusting the room height will automatically scale the Beam plot length (X axis) to match the room height.

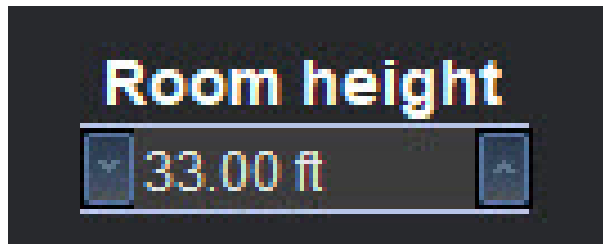


Figure 28

Audience Area 1 & 2

View SPL measurements of the current beam configuration in a defined listening area. Two listening areas can be defined, each with its own settings to represent the listening space (Figure 29). To view the SPL plots you must set up at least one listening area.

- **Start X:** How far the from the edge of the room (loudspeaker side) the listening area starts.
- **End X:** How far the from the edge of the room (loudspeaker side) the listening area ends.
- **Start Y:** How high up from the floor the listening height is at the start of the area.
- **End Y:** How high up from the floor the listening height is at the end of the area. If the space is flat, this should equal the Start Y value.

Repeat this for a second listening area if appropriate for the design, such as a split beam configuration with floor and balcony seating.

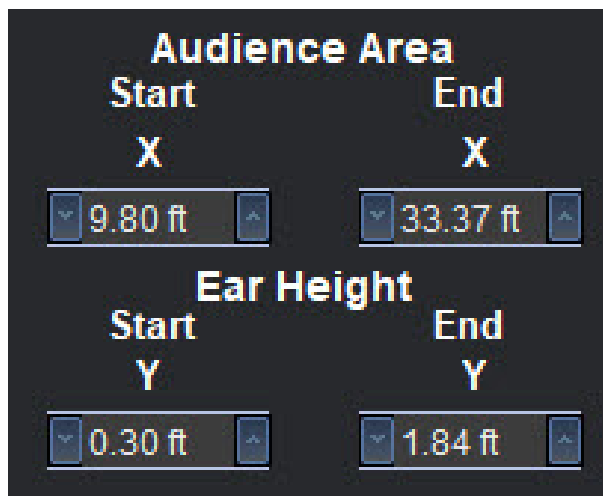
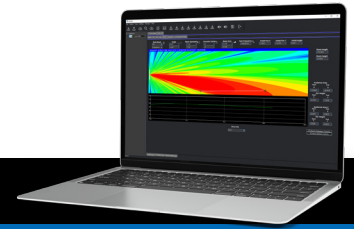


Figure 29

(CONTINUED ON NEXT PAGE)

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

Beam tab (continued)

SPL Plot

After defining listening areas, the resulting SPL plot across the listening area can be viewed (Figure 30). This plot is useful to help configure the specific beam settings, assisting in ensuring even sound coverage across the listening areas.

- Select a listening area (Area 1 or Area 2) from the Show SPL drop-down list.
- The measurements from the chosen listening area will show in green.
- Hover over the area with the mouse cursor to show detailed X/Y coordinate information, as well as overlay a positional point on the Beam plot.

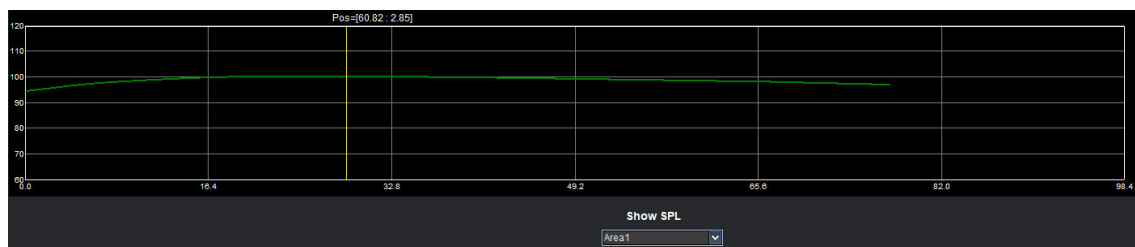
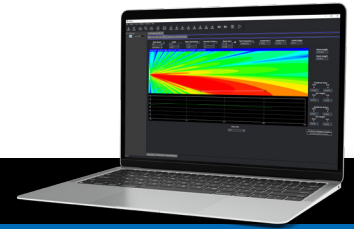


Figure 30

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

Presets tab

- The Presets tab allows for all 24 possible presets to be viewed (Figure 31). The eight buttons on the right will immediately load associated preset immediately when pressed.

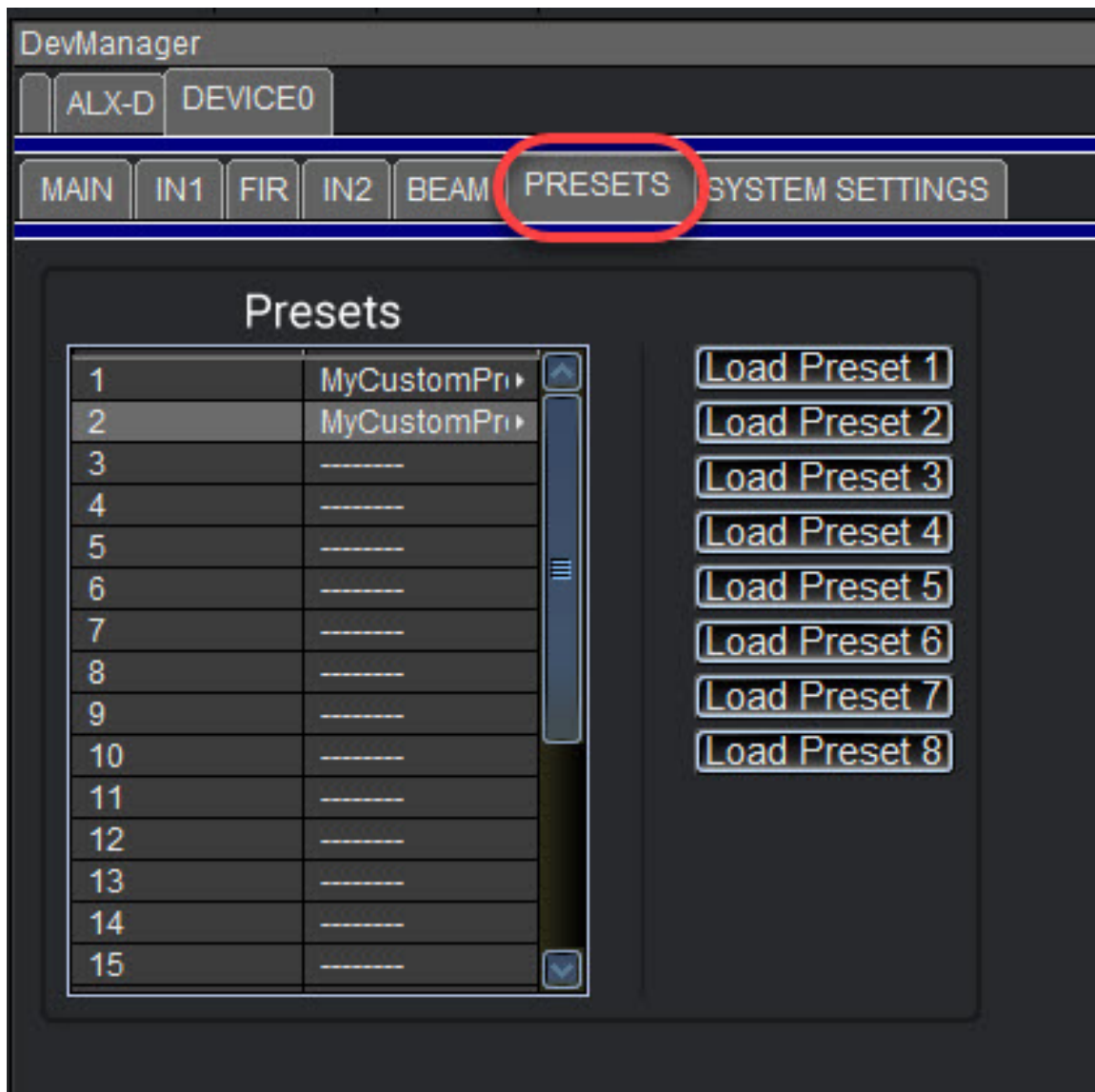


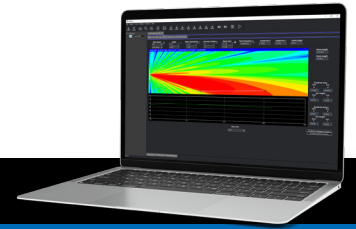
Figure 31

(CONTINUED ON NEXT PAGE)

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

Presets tab (continued)

- To save Presets, use the Main tab (refer to Main tab > Preset section above) (Figure 32).

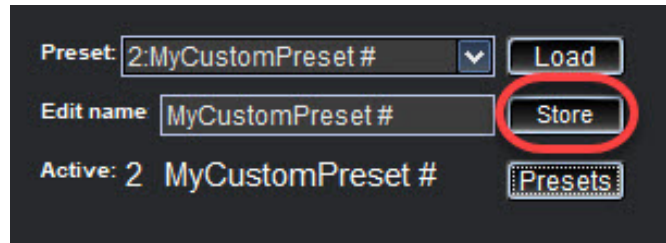


Figure 32

- To load Presets, use the Main tab (refer to Main tab > Preset section above) (Figure 33).

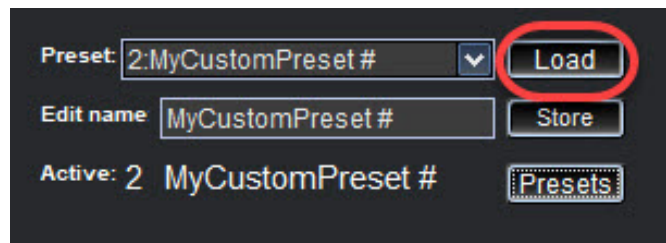
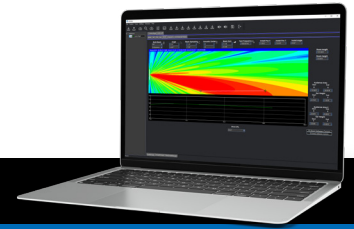


Figure 33

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

System Settings tab

- The System Settings tab consists of two sub-tabs: System and Amp Test (Figure 34).
 - **System:** The System sub-tab allows for the following adjustments:
 - **Input Gain Offset – AES:** Adjust the input gain of the incoming AES digital audio signal.
 - **Input Gain Offset – Dante:** Adjust the input gain of the incoming Dante networked audio signal.
 - **Signaling Time:** Adjust the amount of time the Signal (Locate) LED will blink when pressed.
 - **Signal (Locate) button:** When pressed, a blue light will blink for a short amount of time. This LED can be seen through the front of the loudspeaker in the far-bottom-right, flashing from behind the grille.
 - **Error LED Behavior:** Select the behavior for the Signal (Locate) LED.
 - LED_Off: LED will always remain off.
 - Error_LED: LED will be on when there is an error/fault in the system.
 - LED_On: LED will remain on (solid) indefinitely.

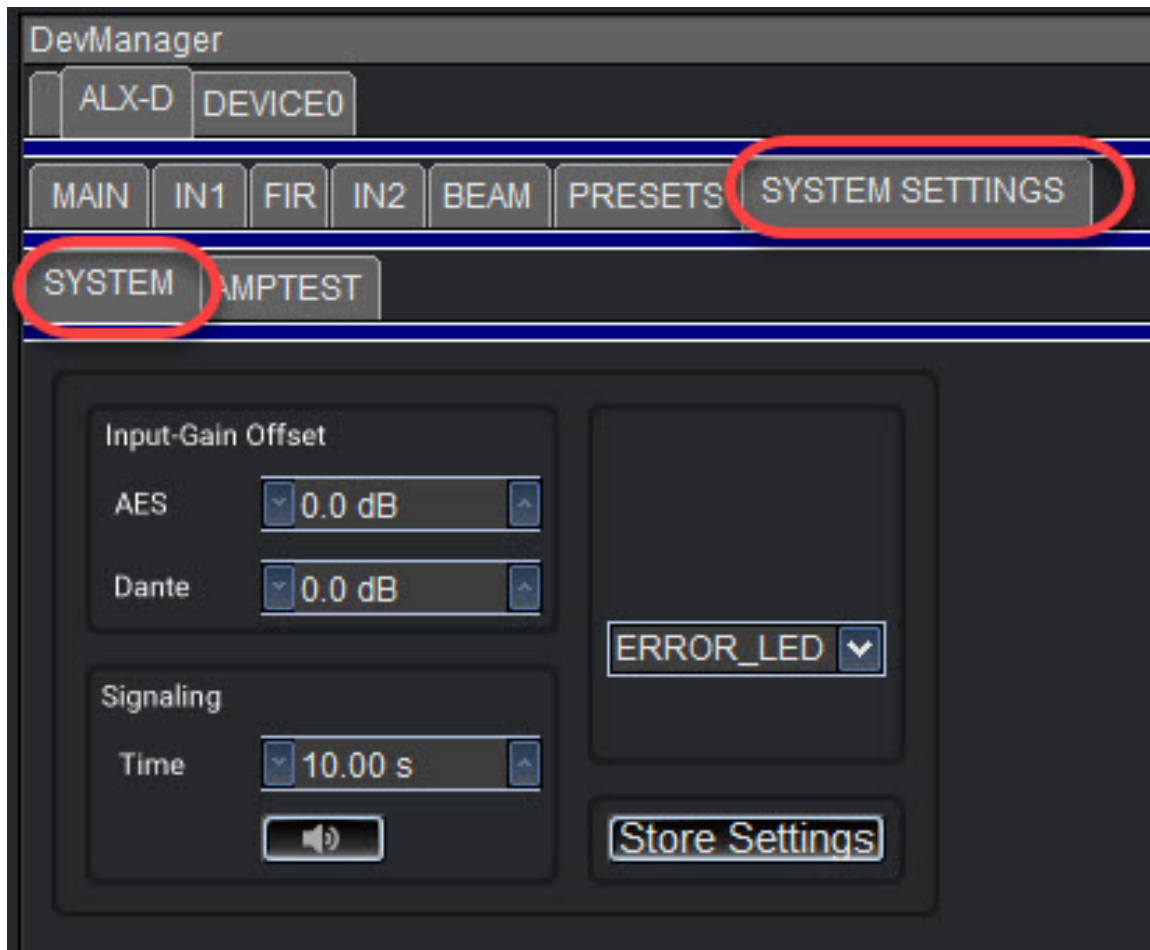


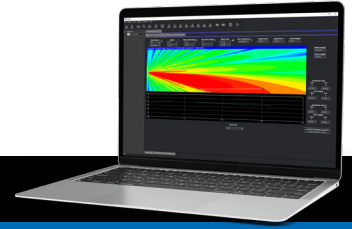
Figure 34

(CONTINUED ON NEXT PAGE)

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COLUMN ARRAY LOUDSPEAKERS

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DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

System Settings tab (continued)

- **Amp Test:**
 - The Amp Test section can help troubleshoot hardware issues with AtlasIED should they arise (Figure 35).

The screenshot shows the DevManager software interface. At the top, there are tabs for 'ALX-D' and 'DEVICE0'. Below that, a row of navigation tabs includes 'MAIN', 'IN1', 'FIR', 'IN2', 'BEAM', 'PRESETS', and 'SYSTEM SETTINGS' (which is circled in red). Under 'SYSTEM SETTINGS', there are sub-tabs for 'SYSTEM' and 'AMPTEST' (also circled in red). The 'AMPTEST' section contains three input fields labeled 'int' with values 0, 255, and 0. To the right of these are three blue buttons: 'AMP-ERROR', 'AMP-OK', and 'SPK-ERROR'. Below these are two tables: 'Amp-Voltage' and 'Amp-Current', each with 8 rows of data.

Amp-Voltage	
1	449.36492919 ▶
2	451.37506103 ▶
3	452.63781738 ▶
4	454.42694091 ▶
5	456.66583251 ▶
6	453.23406982 ▶
7	455.34680175 ▶
8	454.23001098 ▶

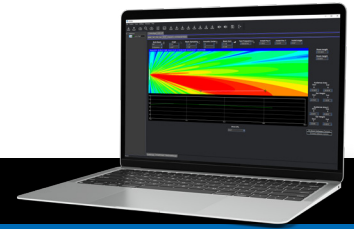
Amp-Current	
1	61.166770935 ▶
2	62.607837677 ▶
3	60.513057708 ▶
4	59.800800323 ▶
5	47.692661285 ▶
6	46.765777587 ▶
7	49.326309204 ▶
8	45.668888092 ▶

Figure 35

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COLUMN ARRAY LOUDSPEAKERS

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LOUDSPEAKER GROUPS

Grouping Summary

When managing multiple loudspeakers in a unified system, it may be helpful to create a Group to perform global changes simultaneously. Aimline software allows individual loudspeaker input channels to be assigned to a Group for unified control of:

- Input Gain
- Mute
- Input EQ
- Delay

To configure this capability, both the **NewGroupManager** and **GroupManager** screens will be utilized.

- **NewGroupManager:** Create Group control objects and assign them to input channels from multiple loudspeakers. Basic level and delay control of Grouped Loudspeakers can also occur on this screen.
- **GroupManager:** Once a Group (or Groups) has been created, the GroupManager screen allows for simultaneous control of certain group parameters.

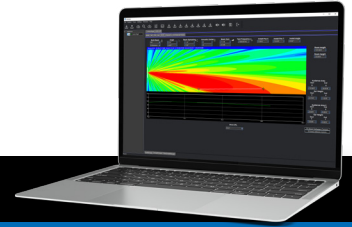
Note: It is recommended that all loudspeakers be configured individually prior to creating Groups.

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LOUDSPEAKER GROUPS (CONTINUED)

Add Devices to NewGroupManager

- Select the **NewGroupManager** tab. By default this is at the bottom of the screen (Figure 36).

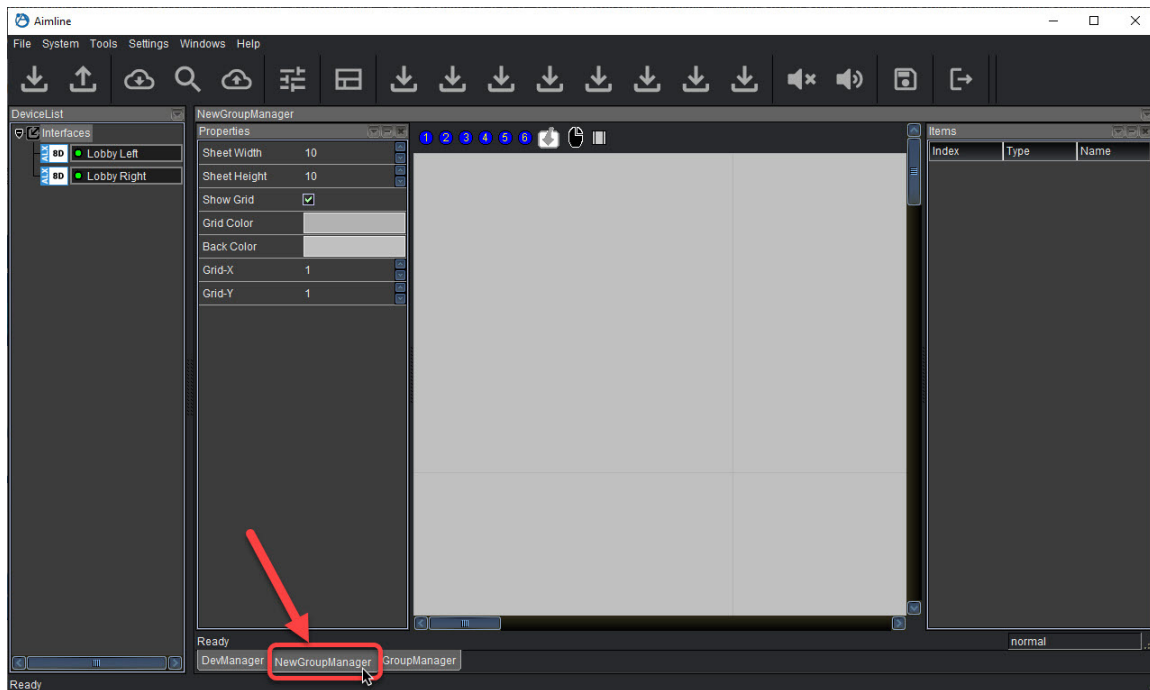


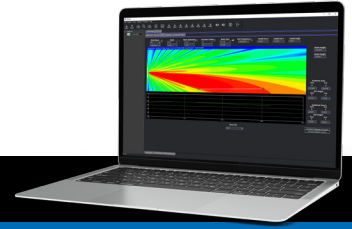
Figure 36

(CONTINUED ON NEXT PAGE)

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LOUDSPEAKER GROUPS (CONTINUED)

Add Devices to NewGroupManager (continued)

- Add your devices by dragging them, individually, from the **DeviceList** to the blank canvas of the **NewGroupManager** tab (Figure 37).
Note: You must grab the loudspeaker icon, not the text, for the drag-and-drop function to work.

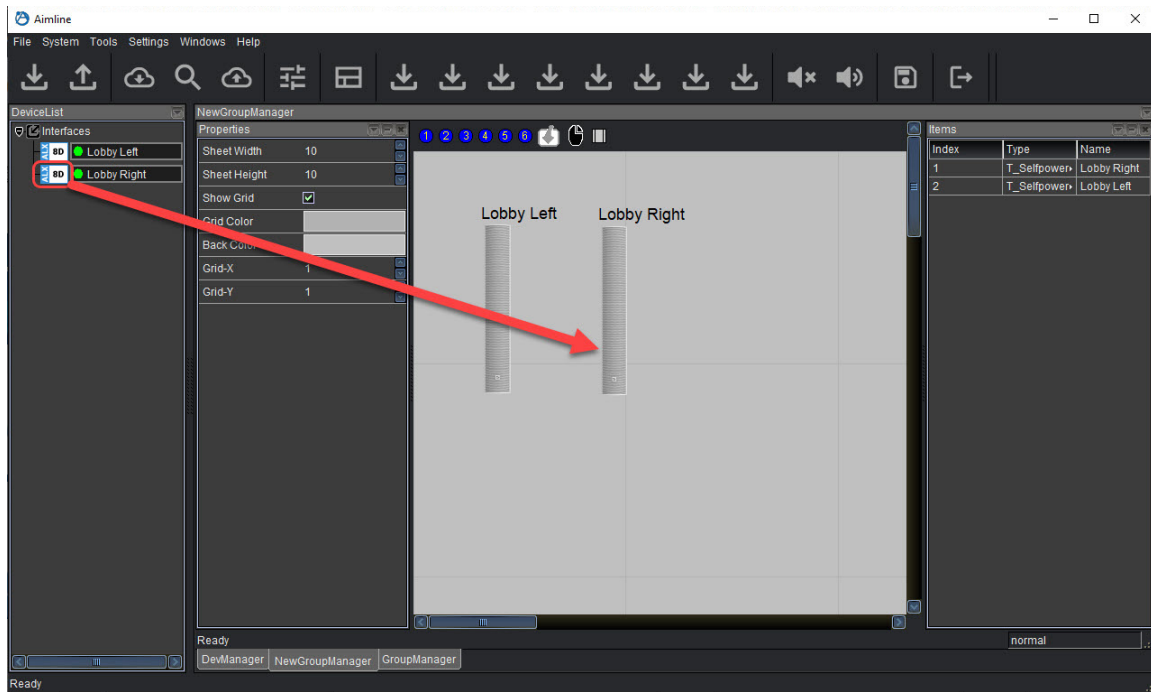


Figure 37

- When a loudspeaker is added to the **NewGroupManager** canvas, the status indicator will increase in size, indicating it is contained within the **NewGroupManager** window (Figure 38).

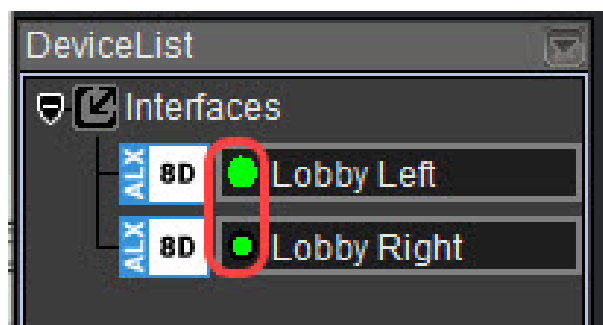


Figure 38

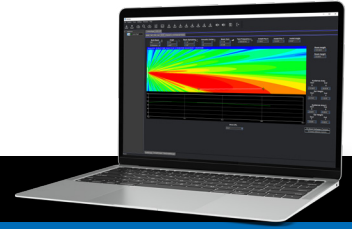
- Add all of the loudspeakers you wish to be assigned to a group control to the canvas.

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LOUDSPEAKER GROUPS (CONTINUED)

Create a Group and Assign Loudspeaker Channels to Group

- Once the desired loudspeaker devices are added to the **NewGroupManager** canvas, the Group objects must be added and configured.
- To add a Group, right-click in a blank space on the canvas and select **Add Group > Add DefaultGroup**. This will create a Group object (Figure 39).

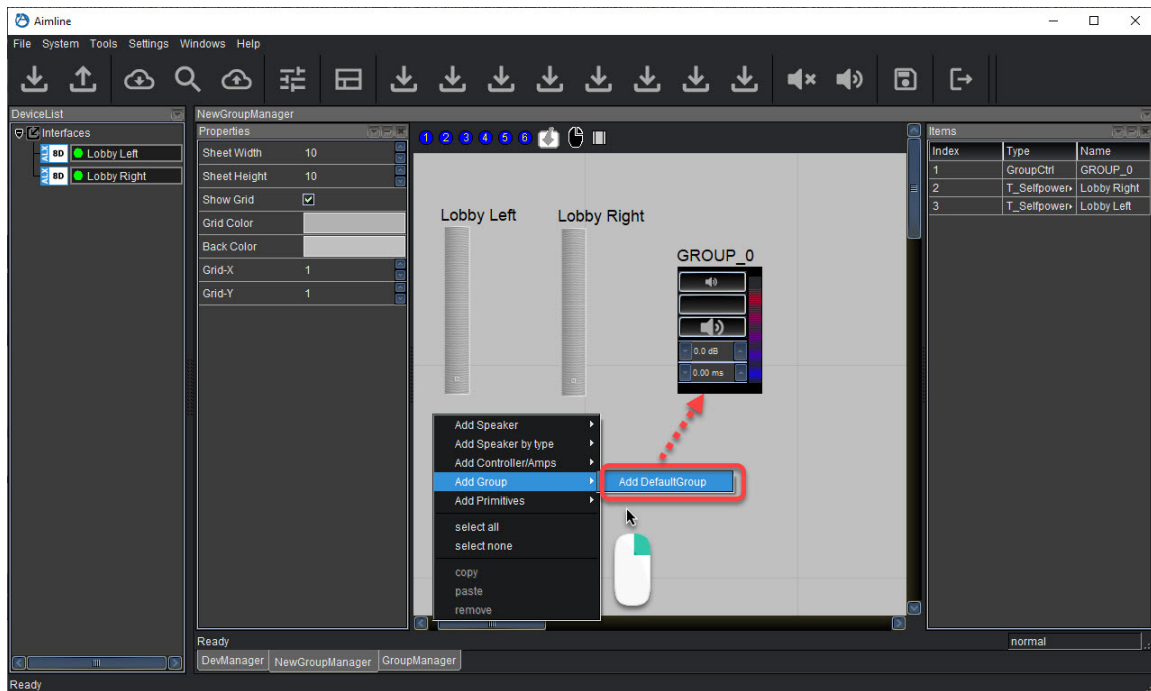


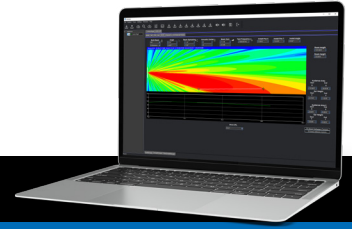
Figure 39

(CONTINUED ON NEXT PAGE)

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LOUDSPEAKER GROUPS (CONTINUED)

Create a Group and Assign Loudspeaker Channels to Group (continued)

- Left-click the frame of the Group object to bring up its properties in the left Properties pane (Figure 40).
- Give the Group a friendly name in Name section. Press **Enter** to save. You will notice the Group object has been renamed.
- To allow for combined EQ, the Number of biquads field needs to be changed to reflect the number of EQ bands the Group will be able to control. All ALX-D speakers have 5 bands reserved for Group control (bands 6-10) and it is therefore recommended to enter "5" for this value. Press **Enter** to apply the settings.

Note: This must be done prior to assigning input channels (next step). If any input channel is assigned, the biquads field will be locked to its previous value.

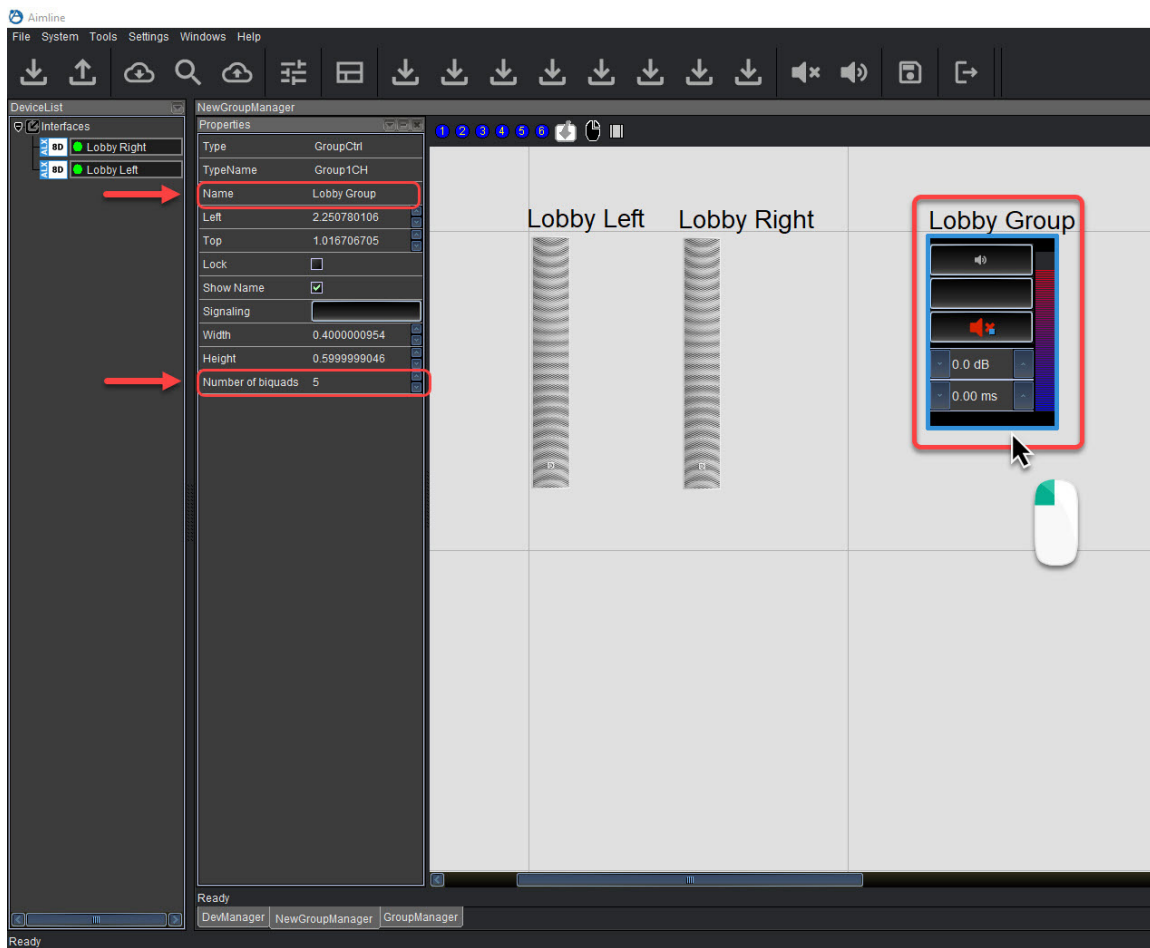


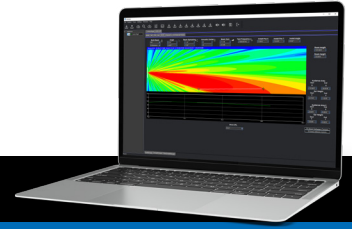
Figure 40

(CONTINUED ON NEXT PAGE)

ALX-D SERIES

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LOUDSPEAKER GROUPS (CONTINUED)

Create a Group and Assign Loudspeaker Channels to Group (continued)

- Next, the Group control needs loudspeaker channels assigned to it. To do this, click the middle button in the Group control. This button is a “show channels” button that will show representations of loudspeaker input channels overlaid on the loudspeakers in the canvas (Figure 41). By default, these channels will be gray, meaning they are not assigned to the selected Group control.

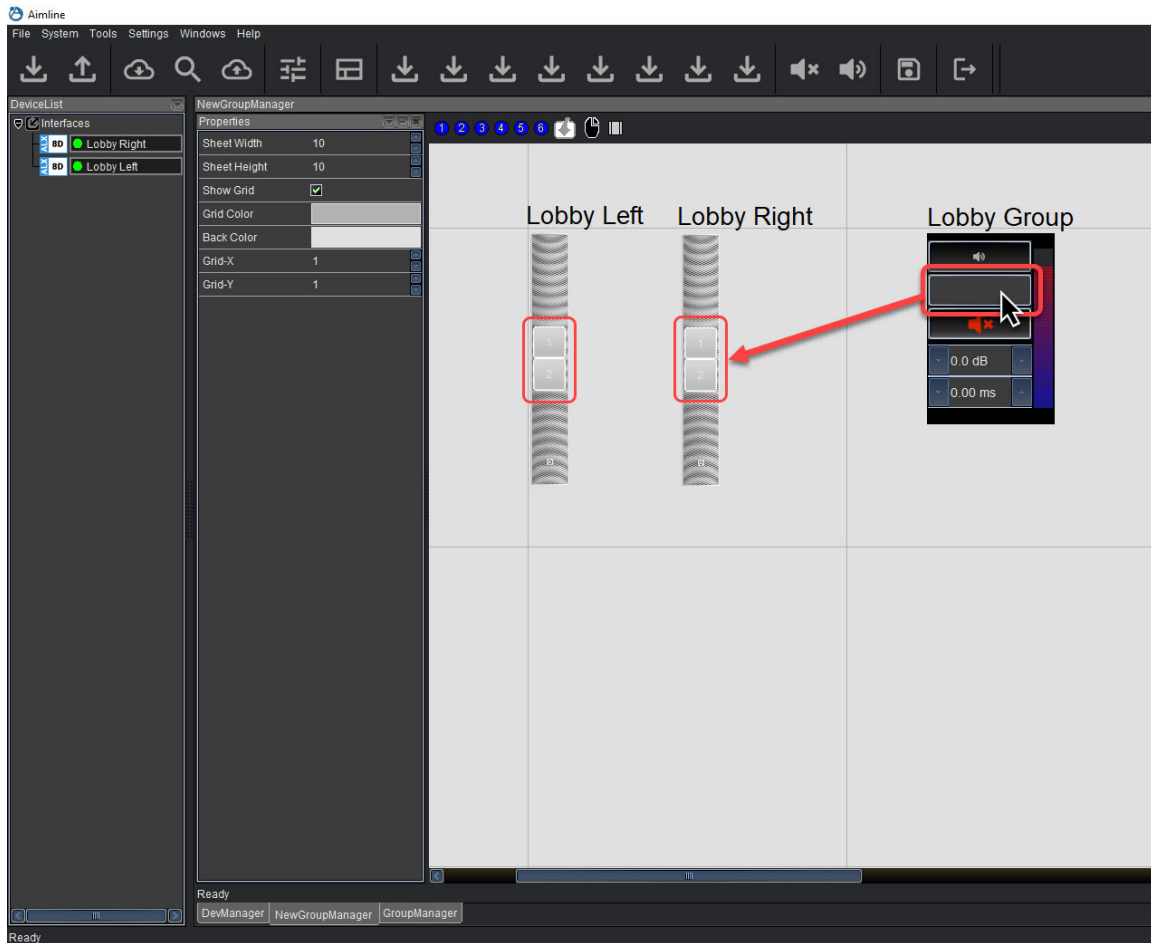


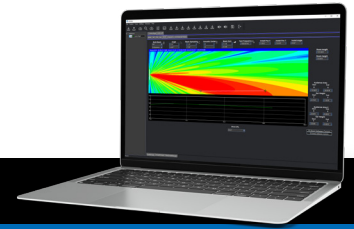
Figure 41

(CONTINUED ON NEXT PAGE)

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LOUDSPEAKER GROUPS (CONTINUED)

Create a Group and Assign Loudspeaker Channels to Group (continued)

- To assign loudspeaker channels to a Group, click the desired input channels. The selected channels will be highlighted to indicate they are part of the Group (Figure 42). In this example, channel 1 from both Lobby Left and Lobby Right loudspeakers are now assigned to the Lobby Group.

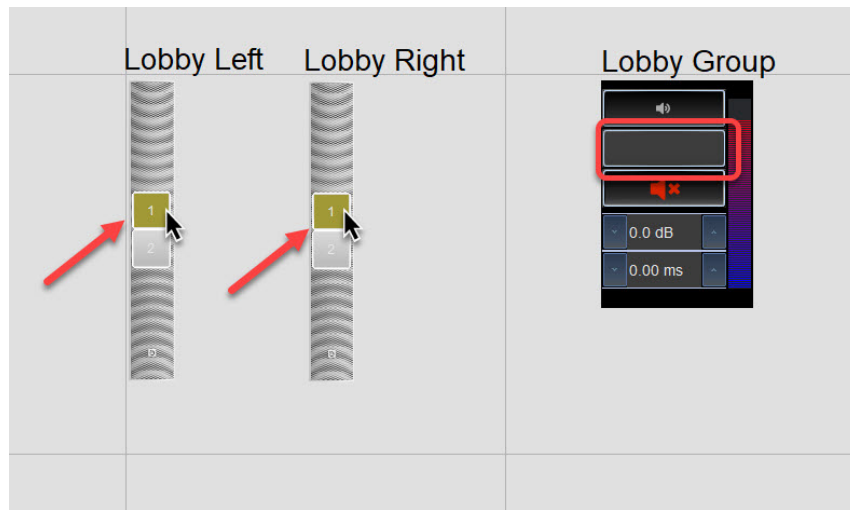
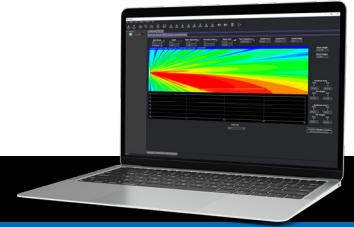


Figure 42

(CONTINUED ON NEXT PAGE)

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LOUDSPEAKER GROUPS (CONTINUED)

Create a Group and Assign Loudspeaker Channels to Group (continued)

- The Group control object can now be used to simultaneously adjust settings on all loudspeaker input channels assigned to it (Figure 43). This includes:
 - **Locate:** Pressing this button will place each device assigned to this Group in the Locate state, blinking the Locate LED on the loudspeaker.
 - **Mute:** Pressing this button will toggle the Mute state of all devices assigned to this Group.
 - **Gain:** Raise and lower input gain level for all channels assigned to this Group.
 - **Delay:** Expand and reduce input delay for all channels assigned to this Group.

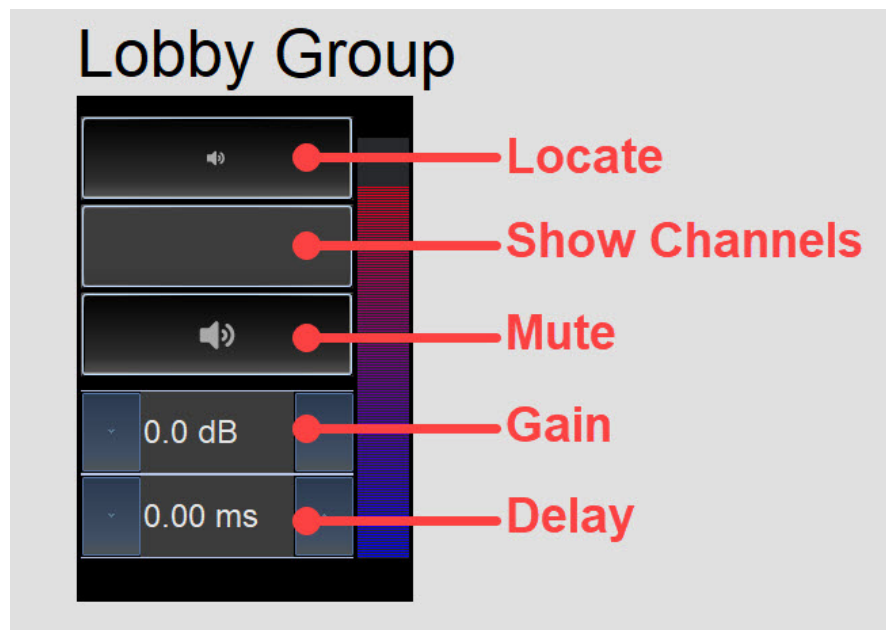


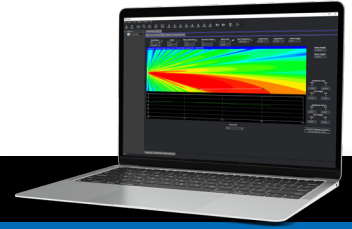
Figure 43

- **Note:** Multiple Group controls can be created, however a channel should only be assigned to a single Group and will not operate properly when assigned to multiple Groups.

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LOUDSPEAKER GROUPS (CONTINUED)

Controlling a Group

- To make changes to settings for all devices within a Group, you must select the **GroupManager** screen. By default, this is found as a tab at the bottom of the application (Figure 44).
- Tabs for each Group are shown at the top. Select the Group you want to control. A Group must be selected to show the Group controls.

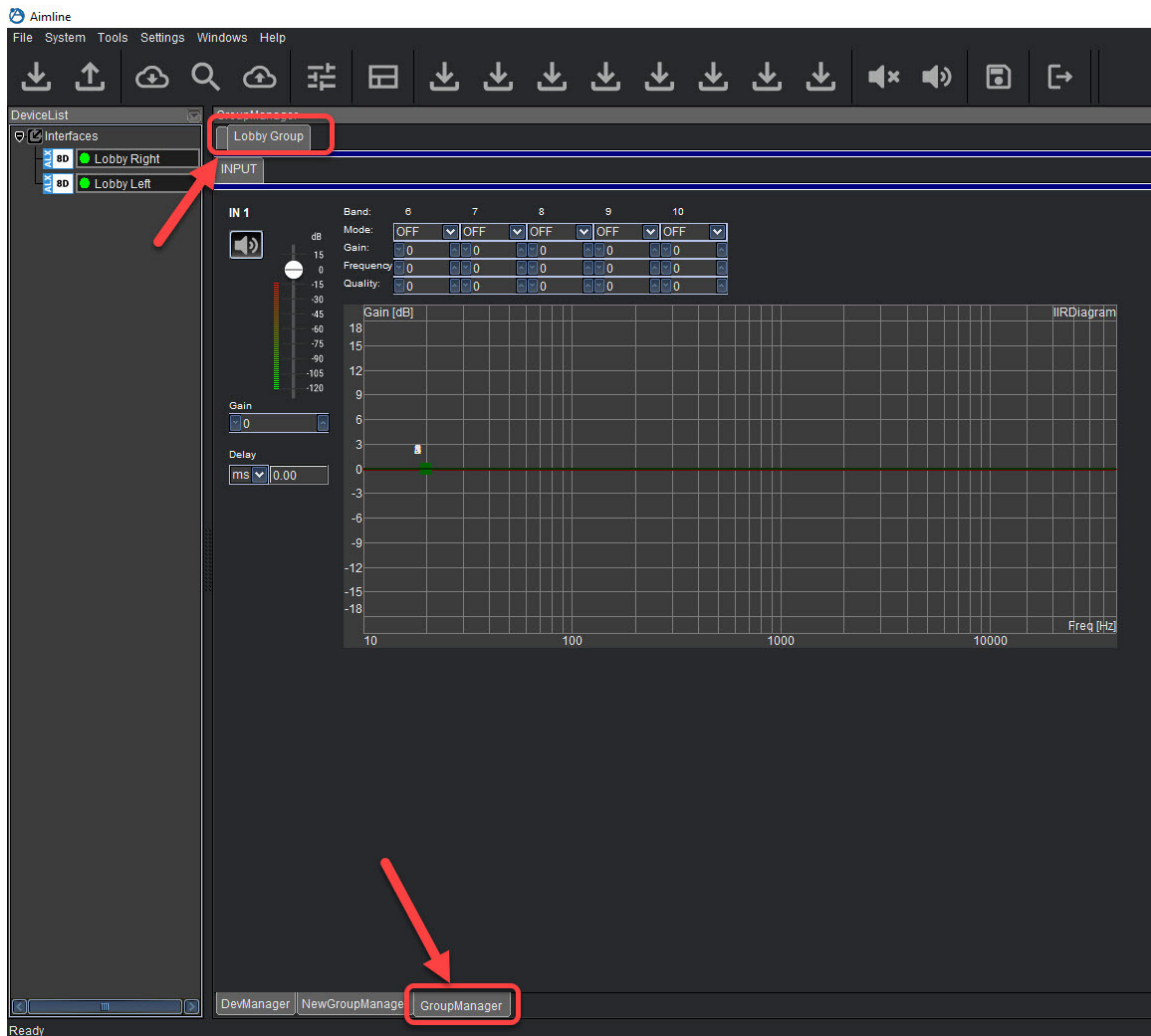


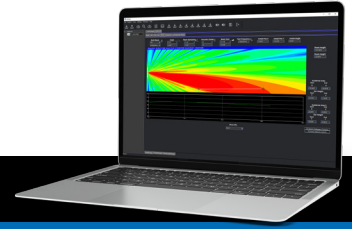
Figure 44

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LOUDSPEAKER GROUPS (CONTINUED)

Controlling a Group (continued)

- Each Group tab includes controls for Gain, Mute, Delay, and EQ. The available filters, 6-10, are in addition to the 5 filters available for individual device control (Figure 45).

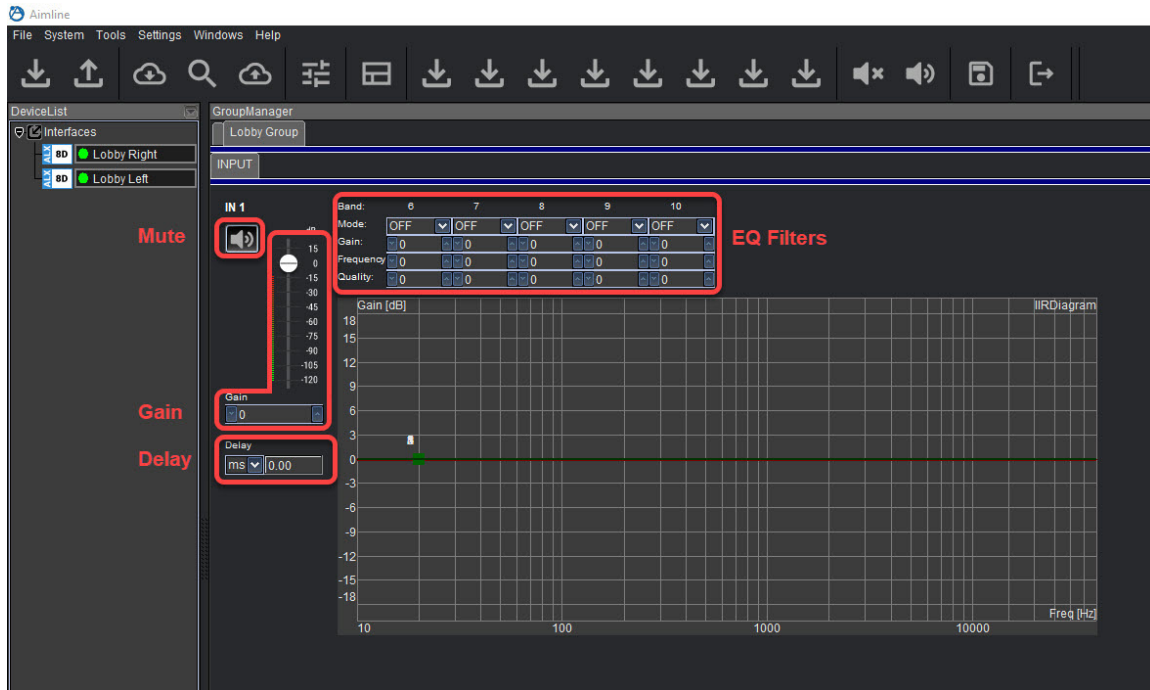


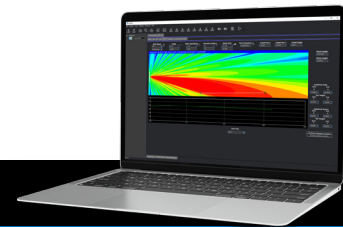
Figure 45

(CONTINUED ON NEXT PAGE)

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LOUDSPEAKER GROUPS (CONTINUED)

Controlling a Group (continued)

- Adjustments made in this Group control will apply to the individual device channels assigned to the Group. EQ settings made in this Group panel will appear on the individual device panel as EQ bands 6-10 (Figure 46).

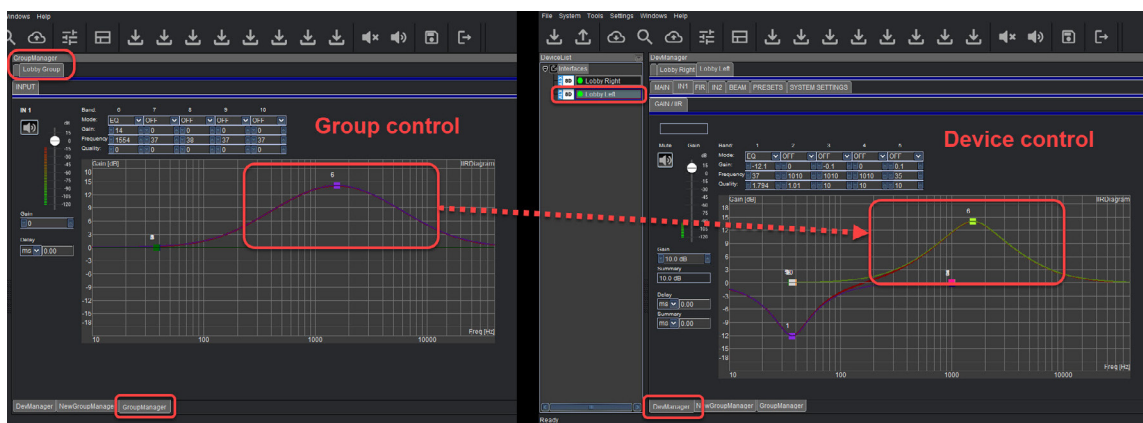
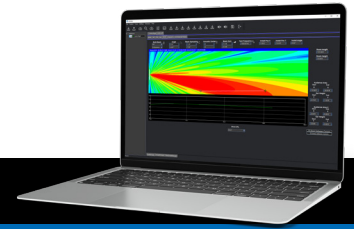


Figure 46

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STORE DEVICE PARAMETERS

- When all parameters have been properly configured, click the **Store Device Parameters** button (Figure 47). This function will ensure that all parameter settings in the GUI are stored onto the device.

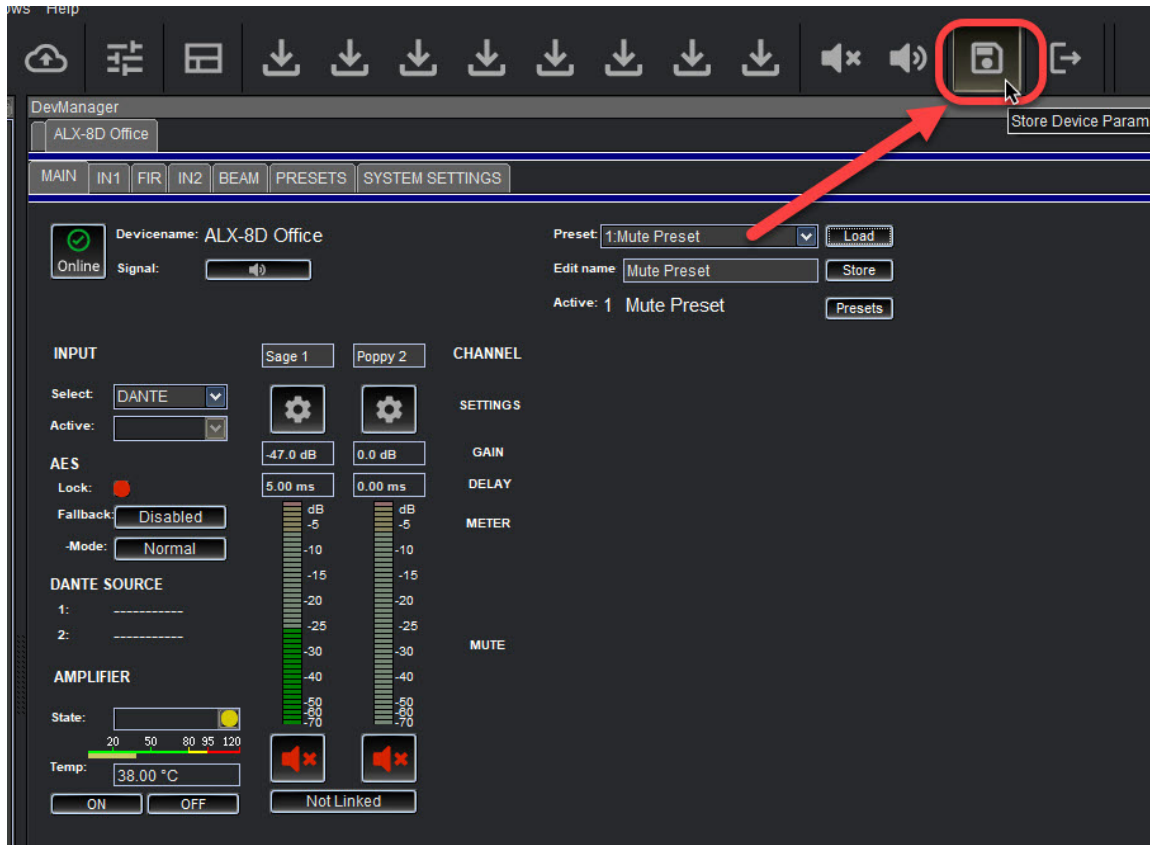
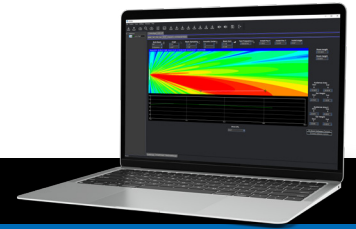


Figure 47

ALX-D SERIES

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SAVING AND LOADING DEVICE SETTINGS

It is possible to save and load settings between individual devices. To do so, you must first determine which types of settings to share and select the matching option. There are three options to choose from.

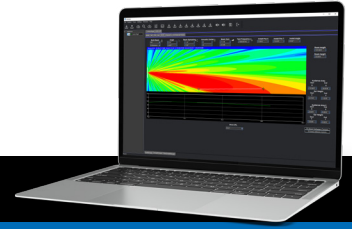
- 1- **Preset Library:** Allows all 24 Presets from one device to be saved and shared with other devices. Preset files include:
 - a. Gain
 - b. Delay
 - c. Beam settings
- 2- **Individual Preset:** Allows a single Preset from one device to be saved and shared with other devices. Preset files include:
 - a. Gain
 - b. Delay
 - c. Beam settings
- 3- **Device Settings:** Allows certain DSP settings from one device to be saved and shared to other devices, including:
 - a. Input Source selection (analog, AES, or Dante)
 - b. Gain offset for analog, AES, or Dante

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SAVING AND LOADING DEVICE SETTINGS (CONTINUED)

1 - Exporting/Importing Presets (individual preset)

- To Export an individual Preset from one device to another, right-click the exporting device in the **DeviceList** to bring up the menu, then select **Export Preset to File**.
- In the window that appears select the save location, name the file, and click **Save** (Figure 48).

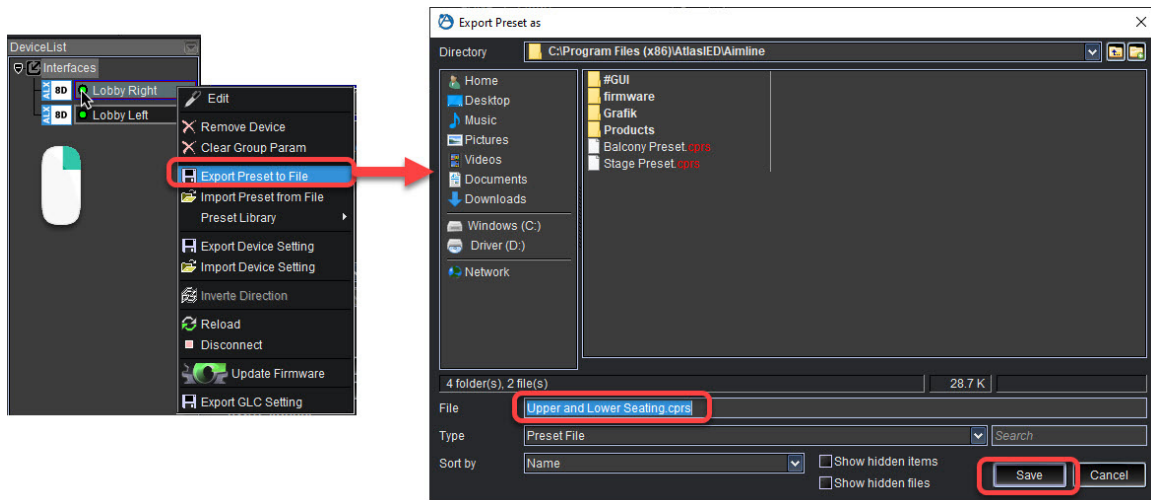


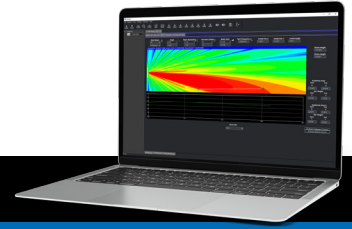
Figure 48

(CONTINUED ON NEXT PAGE)

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SAVING AND LOADING DEVICE SETTINGS (CONTINUED)

1 - Exporting/Importing Presets (individual preset) (continued)

- To Import an individual Preset from a file, right-click the importing device in the **DeviceList** to bring up the menu, then select **Import Preset From File**.
- In the window that appears, select the saved Preset and click **Open** (Figure 49).
- This will copy all included settings from the Preset file to the device.

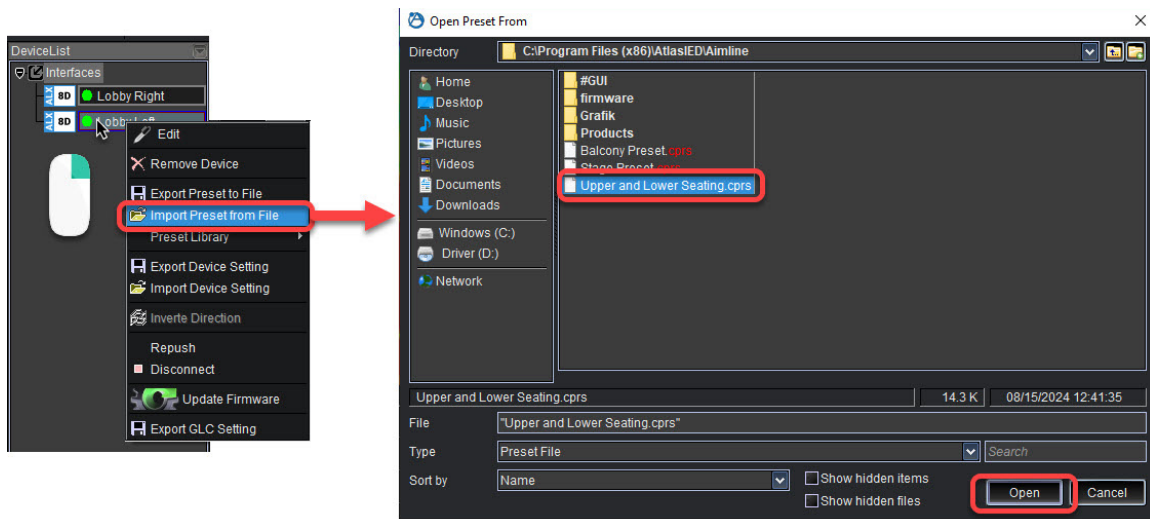


Figure 49

Note 1: The settings will copy over, but the name of the preset on the importing device will remain the same as it was when imported.

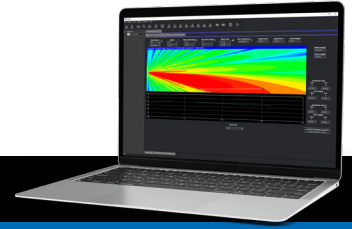
Note 2: See earlier Device Settings > Main Tab for more information about Presets.

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SAVING AND LOADING DEVICE SETTINGS (CONTINUED)

2 - Exporting/Importing Presets Library (all presets)

- To Export all 24 Presets from one device to another, right-click the exporting device in the **DeviceList** to bring up the menu, then select **Preset Library > Export From DSP To File**.
- In the window that appears select the save location, name the file, and click **Save** (Figure 50).

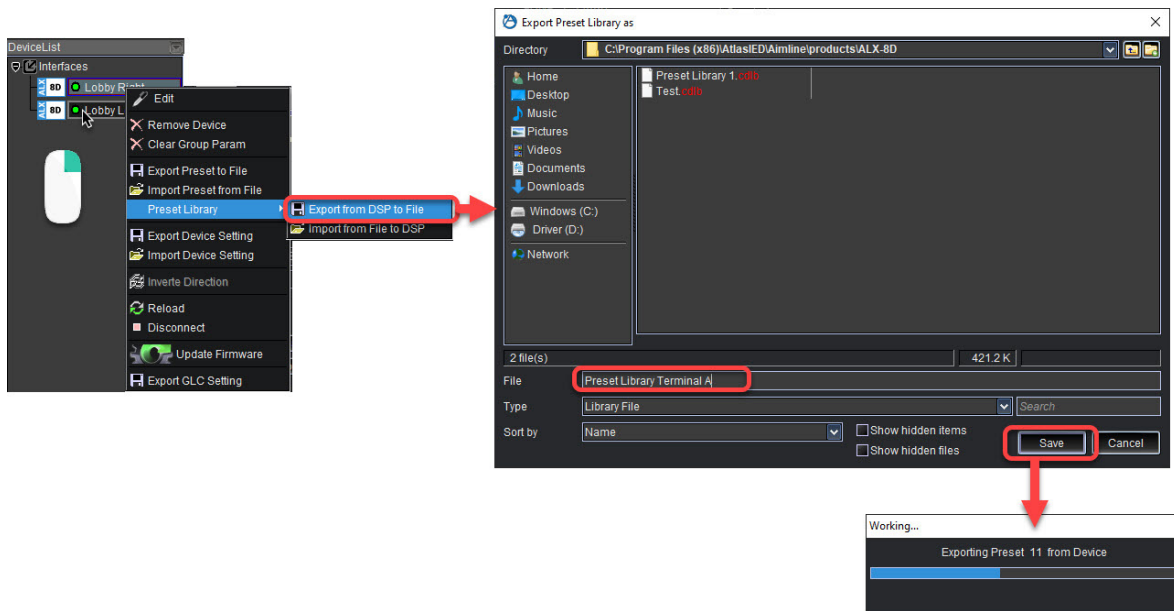


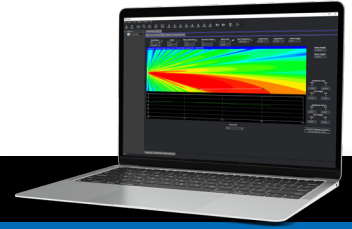
Figure 50

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SAVING AND LOADING DEVICE SETTINGS (CONTINUED)

2 - Exporting/Importing Presets Library (all presets) (continued)

- To Import the library of Presets from a file, right-click the importing device in the **DeviceList** to bring up the menu, then select **Import From File to DSP**.
- In the window that appears select the saved Preset Library and click **Open** (Figure 51).
- This will copy all included settings from the Preset Library to the device.
Note: See earlier Device Settings > Main Tab for more information about Presets.

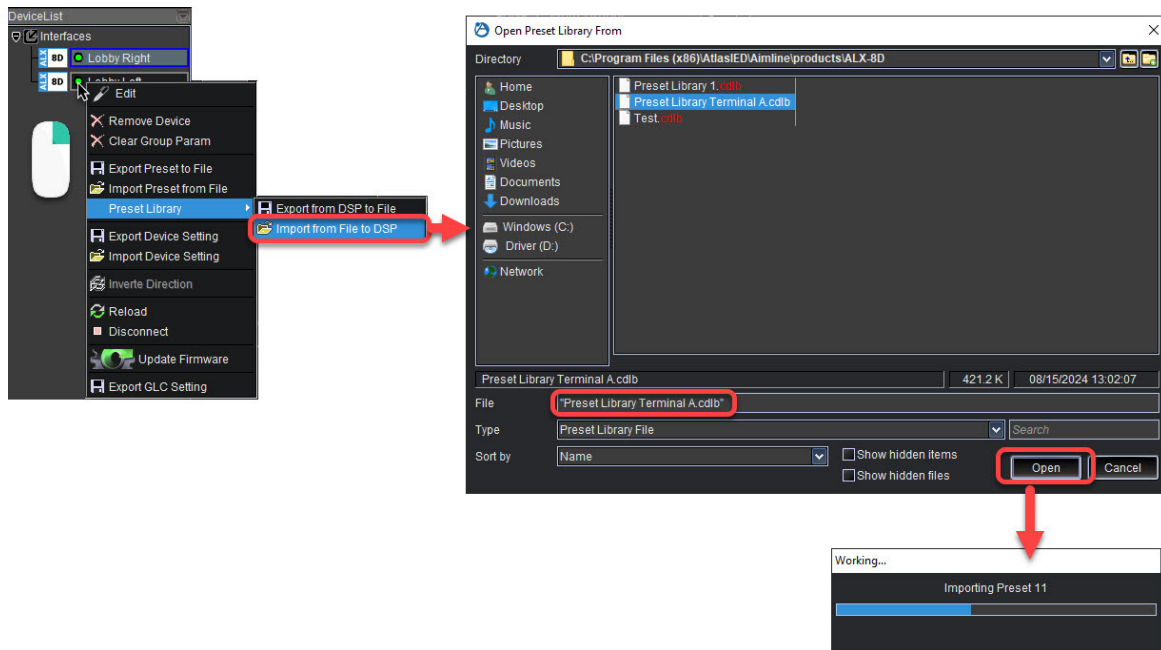


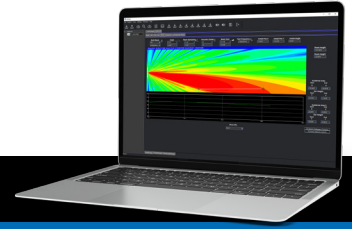
Figure 51

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SAVING AND LOADING DEVICE SETTINGS (CONTINUED)

3 - Exporting/Importing Device Settings

- To Export Device Settings from one device to another, right-click the exporting device in the **DeviceList** to bring up the menu, then select **Export Device Setting** (Figure 52).

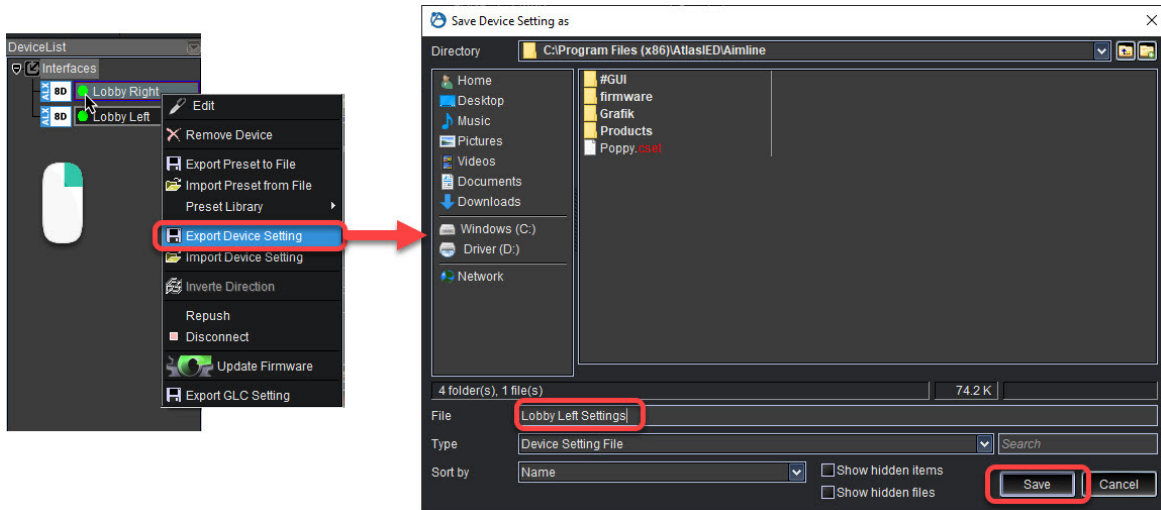


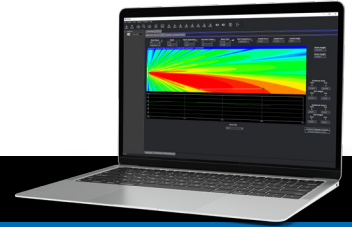
Figure 52

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SAVING AND LOADING DEVICE SETTINGS (CONTINUED)

3 - Exporting/Importing Device Settings (continued)

- To Import Device Settings from a file, right-click the importing device in the **DeviceList** to bring up the menu, then select Import Device Setting.
- In the window that appears select the saved Device Settings and click **Open** (Figure 53).
- This will copy all included settings from the Device Settings file to the device.

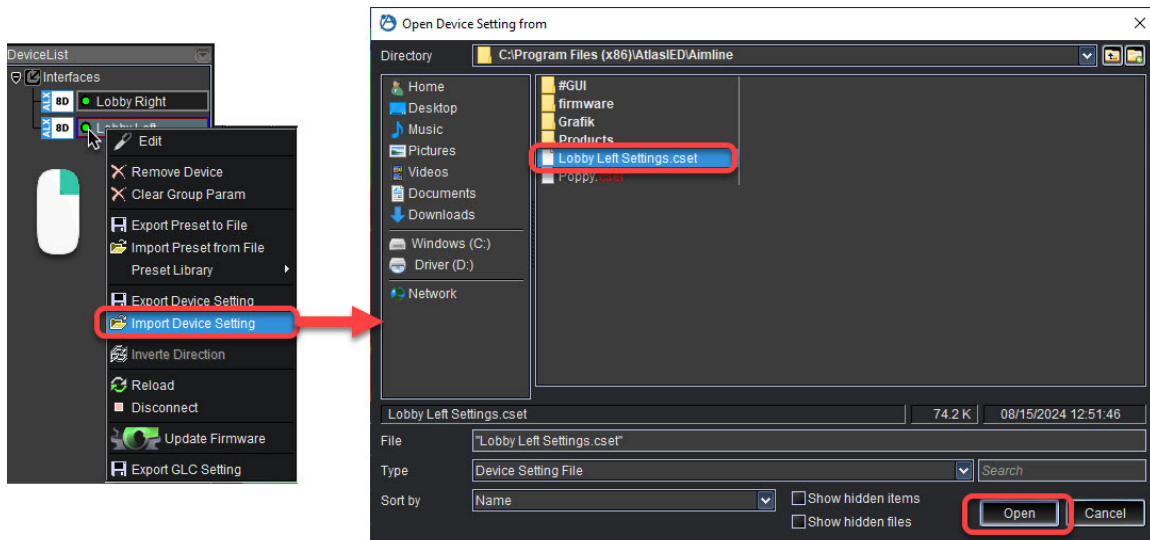
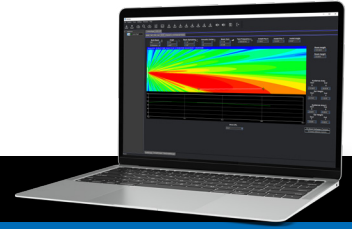


Figure 53

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USING AIMLINE SOFTWARE OFFLINE

- To use Aimline software “offline” with no connected devices, navigate to the **NewGroupManager** tab and right-click on a blank space in the canvas to bring up a menu. Select a loudspeaker from the menu to add it to the page (Figure 54).
- The virtual device appears in the **DeManager** as **DEVICE0** and can be named and managed in **DevManager** in the same way as an offline device.

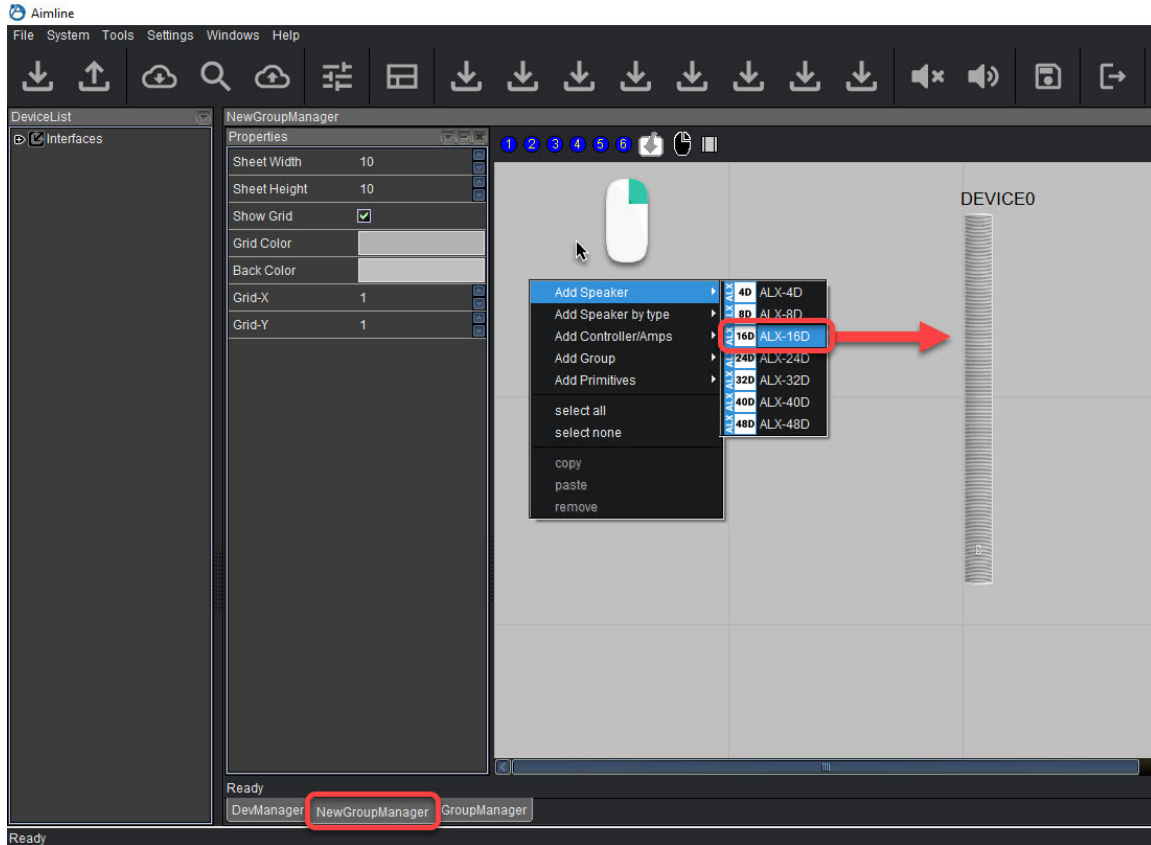
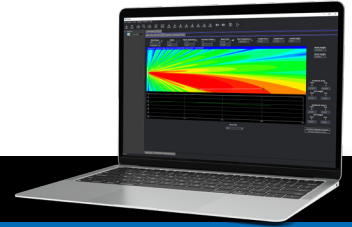


Figure 54

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USING AIMLINE SOFTWARE OFFLINE (CONTINUED)

- Settings can be created and stored to load to an online device later (Figure 55).

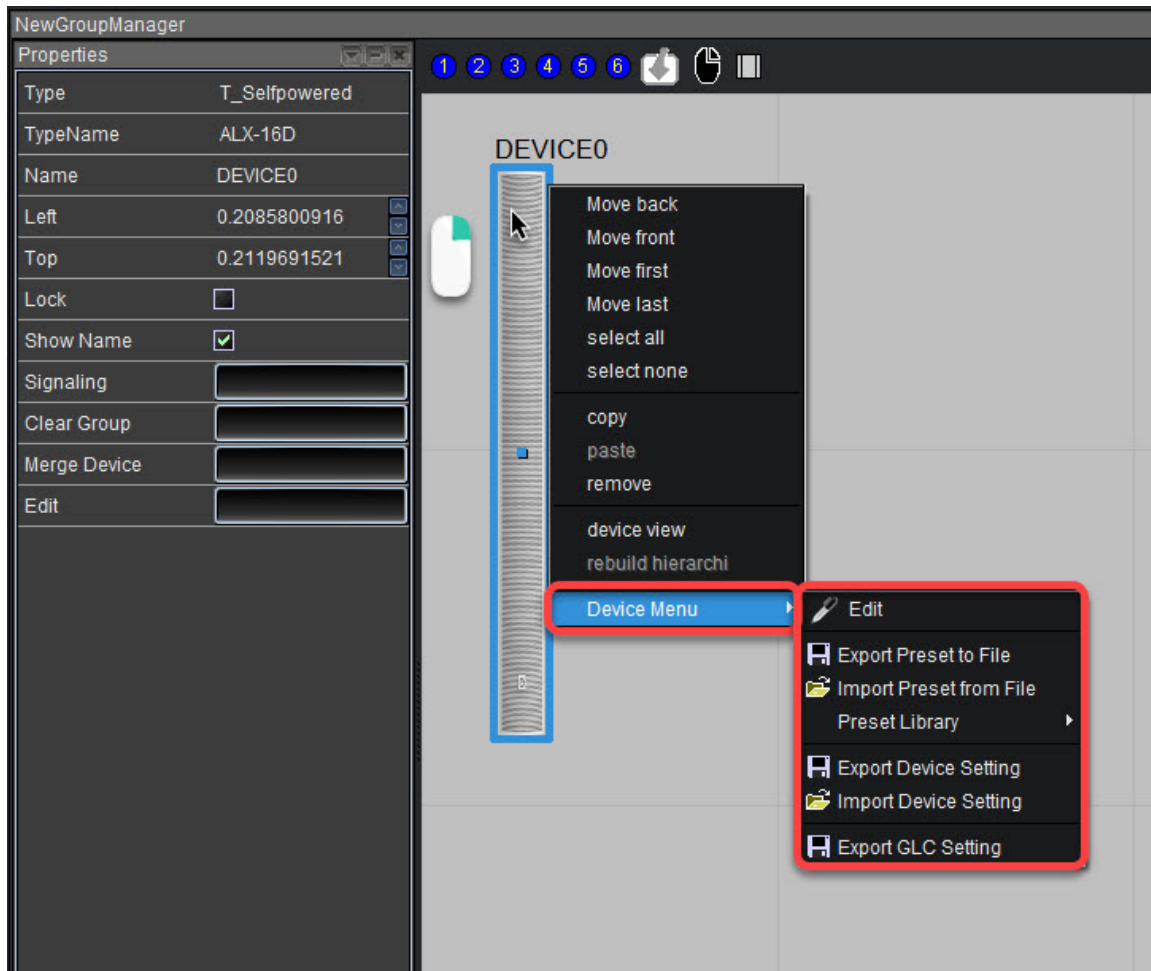


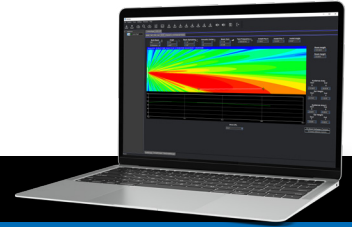
Figure 55

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CONNECTING DANTE NETWORK AUDIO

- You can change the network settings for the Airline Dante inputs using Dante Controller software available from Audinate. With Dante Controller, you can assign the Dante transmitters to Dante receivers. Each Airline ALX-D loudspeaker offers two Dante receiver (Rx) inputs (Figure 56).

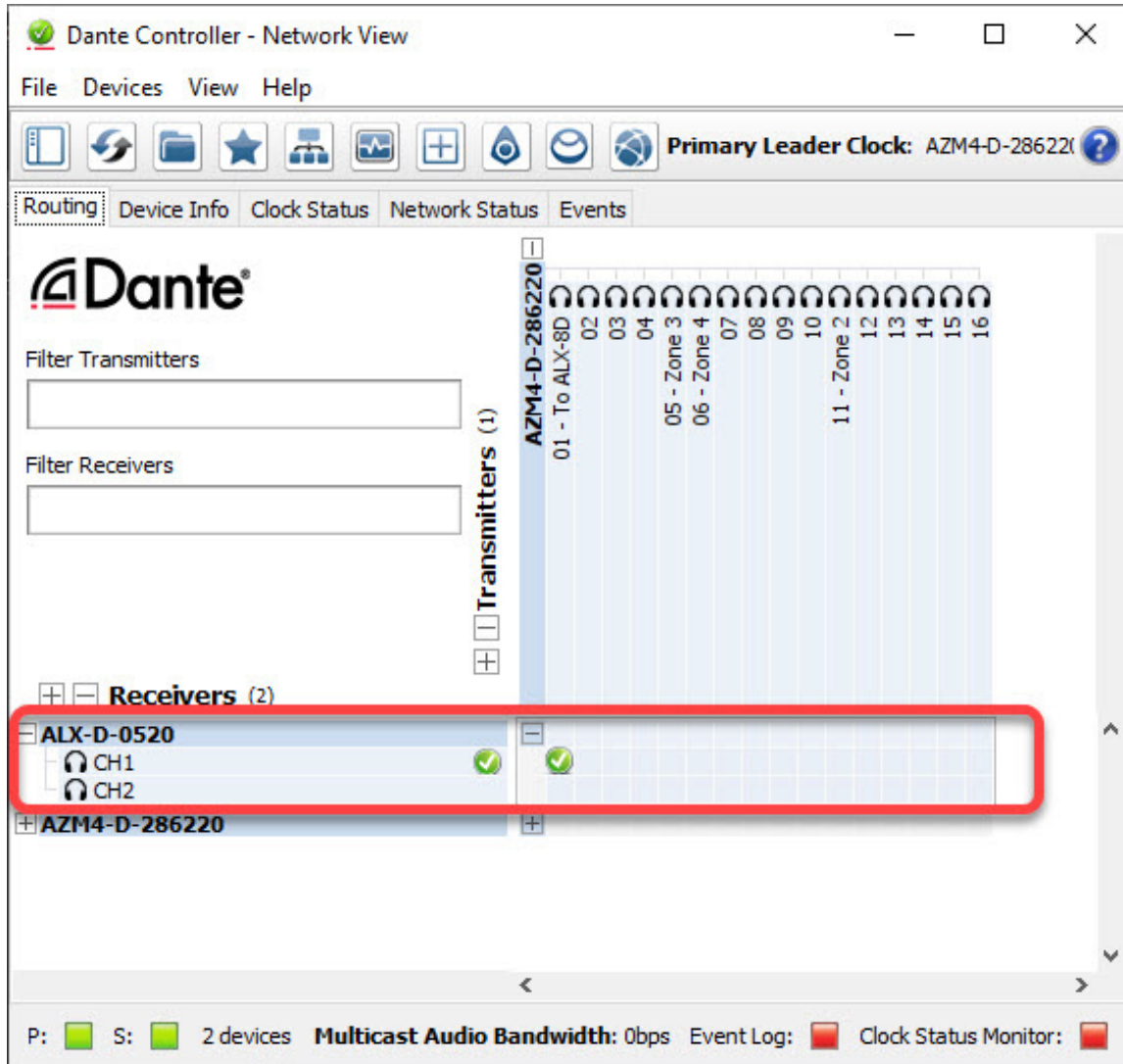


Figure 56

- You can also change the network settings for the Dante cards from DHCP to a fixed IP address. This address must be separate from the main Airline loudspeaker control IP address.

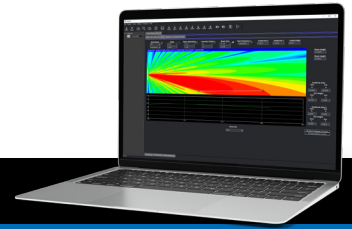
Note 1: The factory default setting for the Dante card is DHCP.

Note 2: We strongly recommend being Dante Level 1 certified prior to configuring and using Dante systems. For more information visit the [Audinate website](https://www.audinate.com).

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UPDATING DEVICE FIRMWARE

- If the ALX-D firmware is out of date, Aimline software may prompt you to update firmware.
- To start a firmware update, select **Updater** from the **Tools** menu (Figure 57).

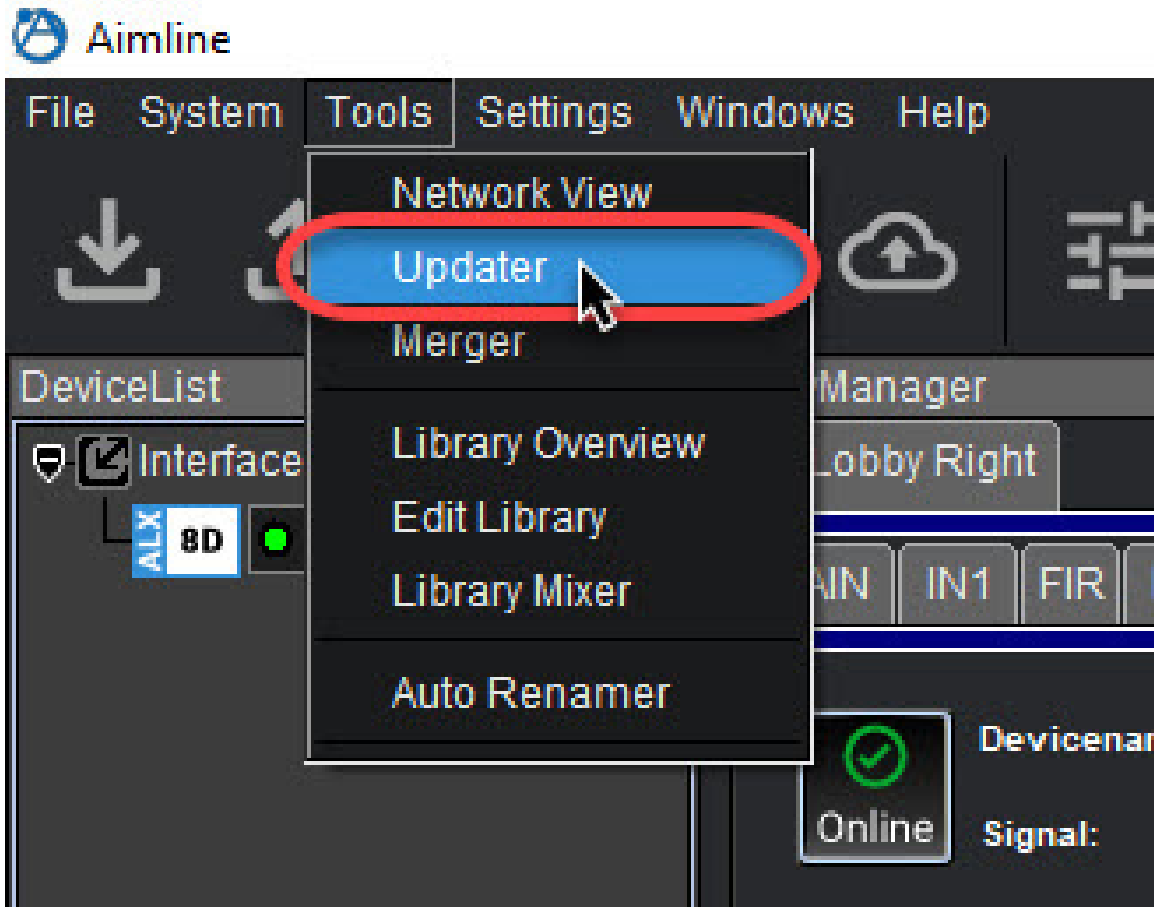


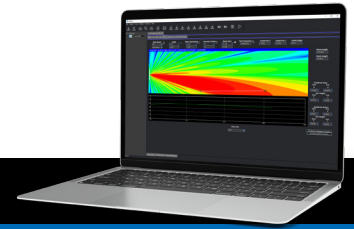
Figure 57

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UPDATING DEVICE FIRMWARE (CONTINUED)

- In the **Updater** window that appears, mark the device/s you wish to update (Figure 58).
- Once all devices are marked, select **Firmware** button to start the firmware update process. Firmware update status is displayed, and can take 2-3 minutes to complete.
- Once complete the speaker will need to be manually power cycled for the process to complete.

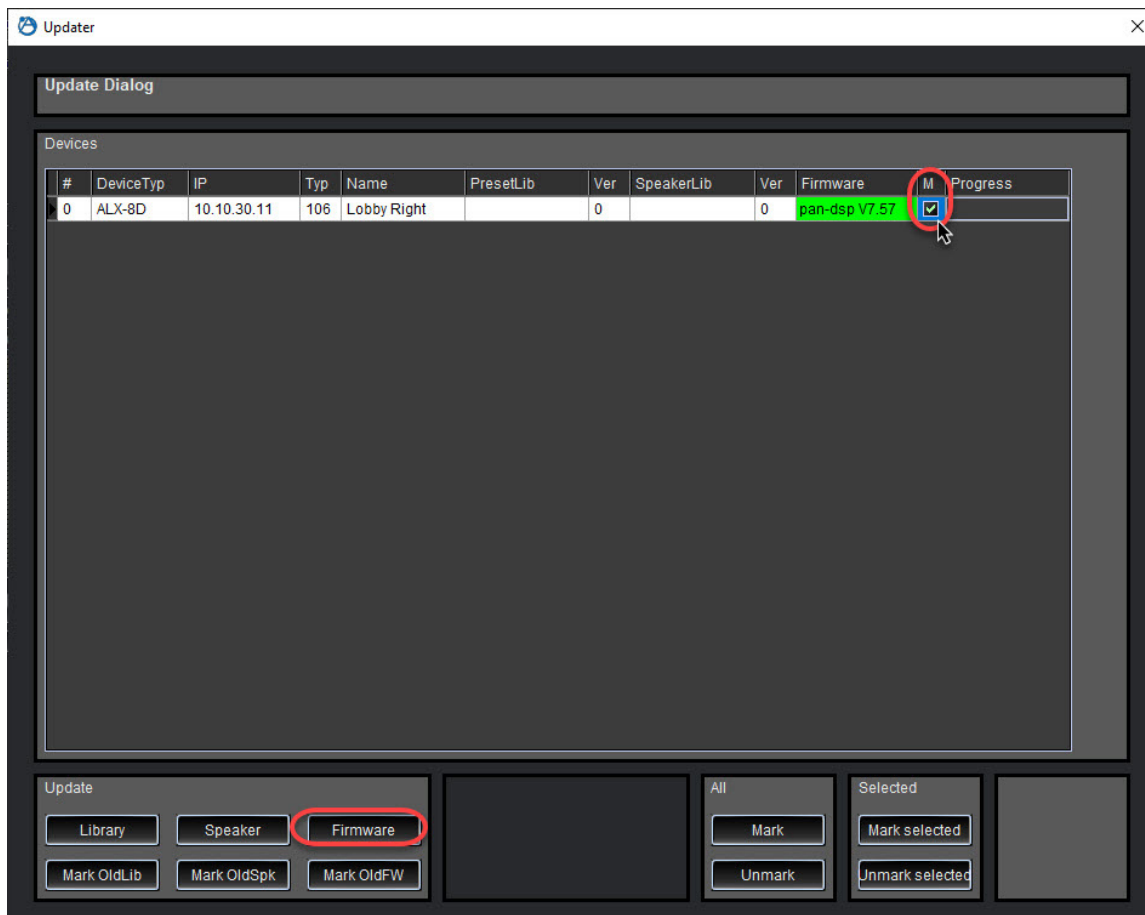
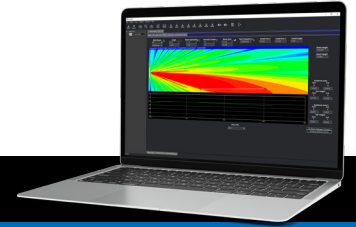


Figure 58

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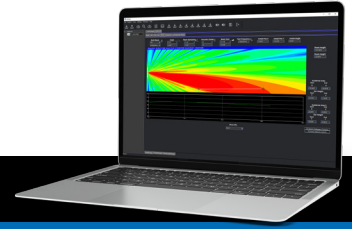
RECALLING PRESETS USING NETWORK UDP COMMANDS

- Device Presets can be recalled using UDP commands coming from a controller on the same network. To recall a preset, the following criteria must be met:
 1. The command has to be sent to the IP address of the selected device
 2. The UDP Port for all Airline devices is 3022
 3. #LOAD_PRESET=preset_number
- Example: Send UDP command "#LOAD_PRESET=2" on port 3022 to 192.168.10.10 to recall Preset 2.

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CASCADING ALX-D MODULES

ALX-8D modules can be cascaded to ALX-16D (two modules), ALX-24D (three modules), ALX-32D (four modules), ALX-40D (five modules), and ALX-48D (six modules) to build extended columns (Figure 59). For comprehensive information and instructions, see the [Aimline ALX Installation Guide](#).

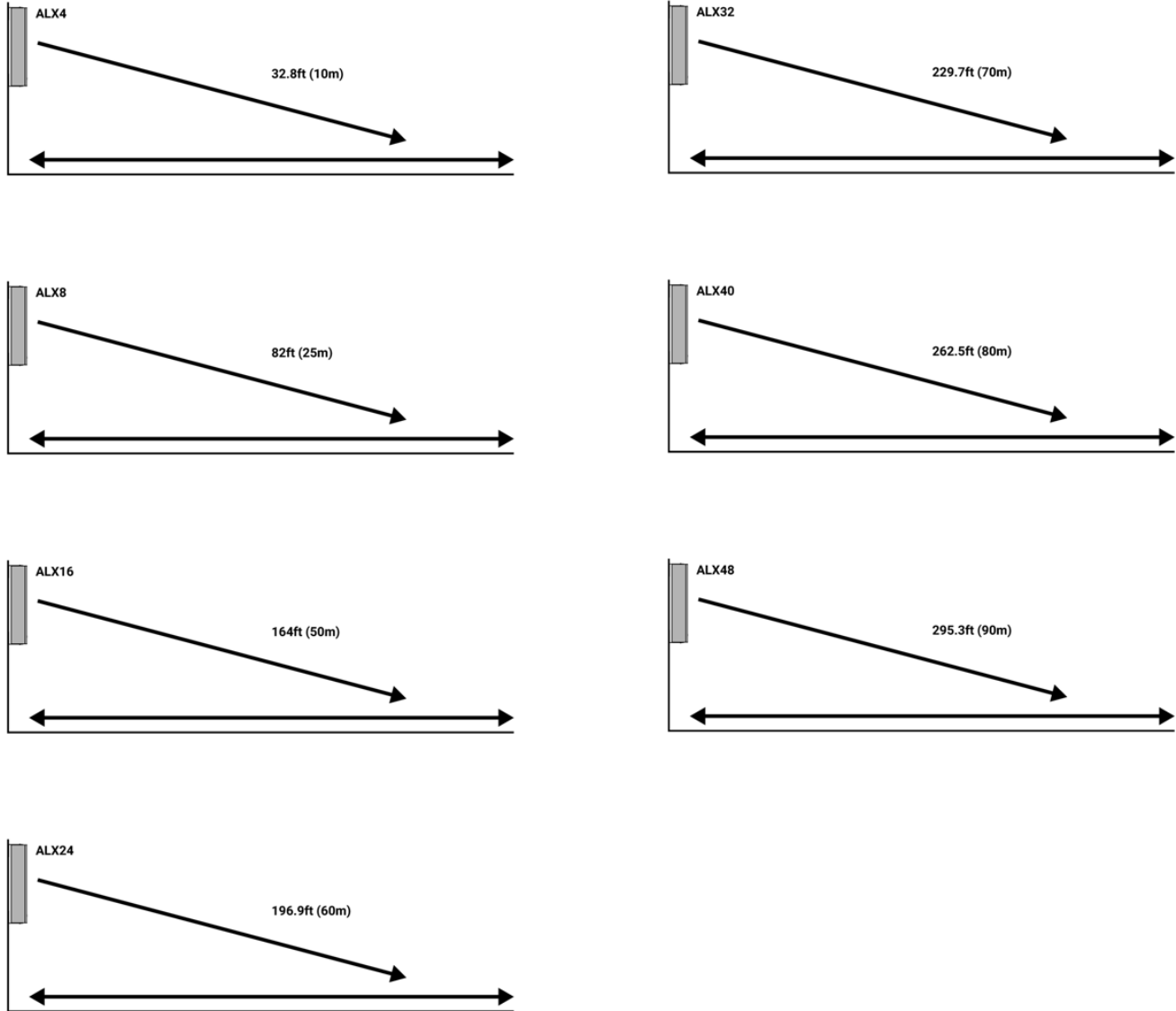


Figure 59

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