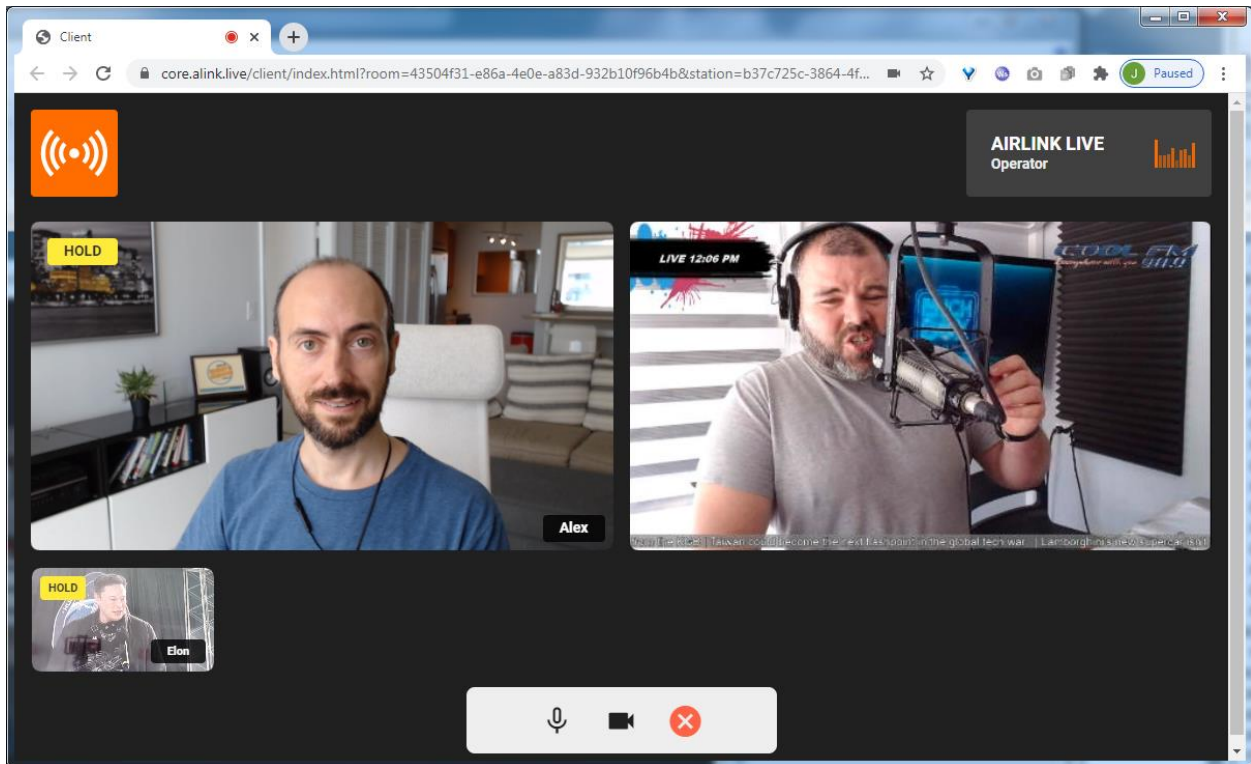**INSOFT, LLC**

North Miami, FL 33179

Tel: +1 786 292 2811
HDVMixer.com

AirLink Installation Guide

Rev.B

1. OVERVIEW

This document covers the installation, configuration, use and good practices regarding HDVMIXER's AirLink remote broadcasting tool. For a day to day user guide please refer to AirLink's User Guide.

AirLink is a virtual studio solution. It bridges the gap between remote team members and the studio.

There is no need to install software. AirLink is browser based; uses broadcast bi-directional audio codecs, handles mix-minus feeds to every participant, and feeds on-air video from HDVmixer and of each participant for easier on-air interactions.
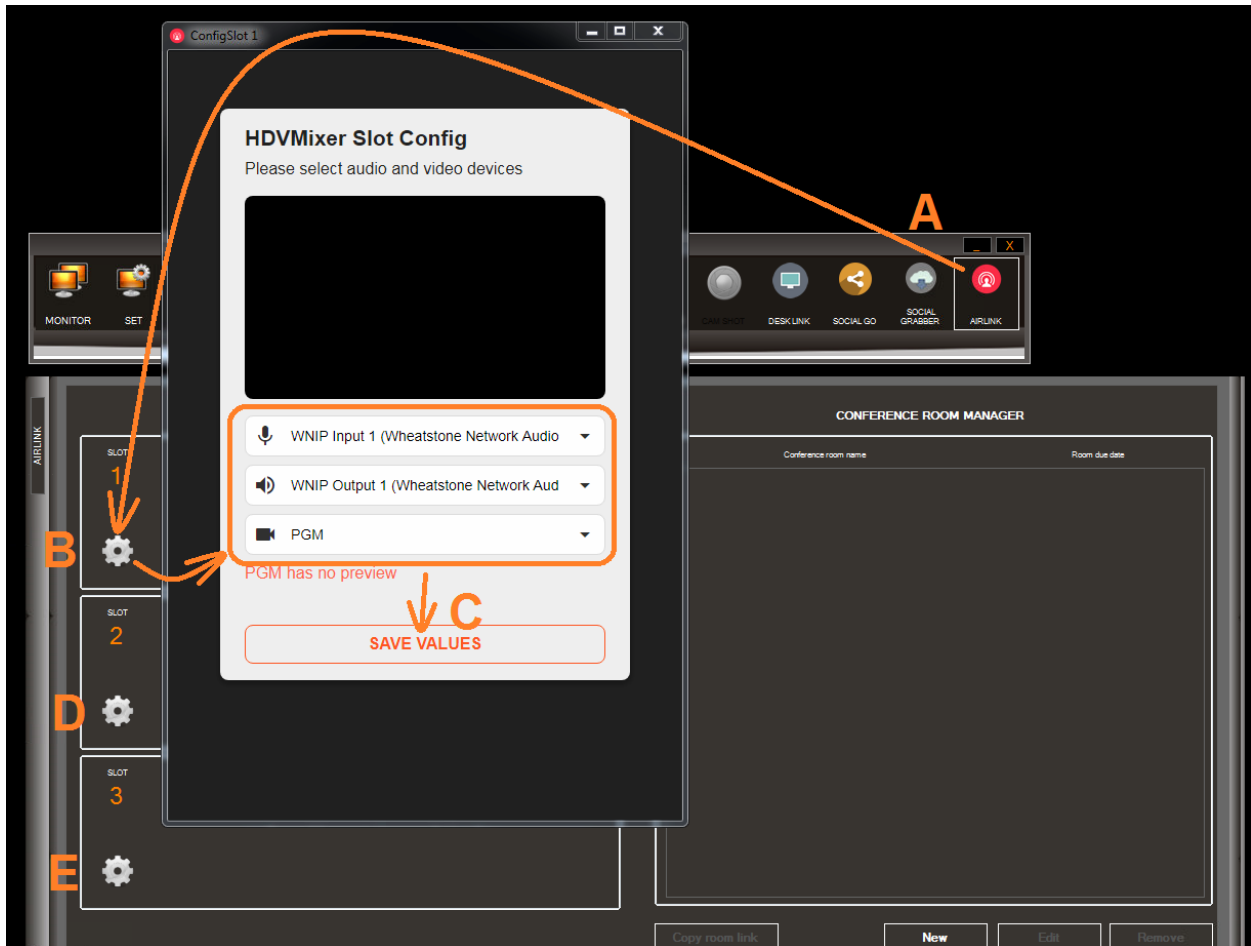
2. UPGRADING HDVMIXER

To upgrade HDVMIXER follow the procedure below:

1. Close HDVmixer in all your computers.
2. Download HDVmixer's update installation package from this link
3. Run the downloaded file 'HDVmixer_Upgrade.exe' and follow the instructions.
4. If user has remote HDV workstations repeat steps #2 and #3 in those as well.
5. The upgrade is now complete. Proceed to re-start HDVmixer.

NOTE: The above procedure can be used to update HDVmixer to any future version of the product as well.
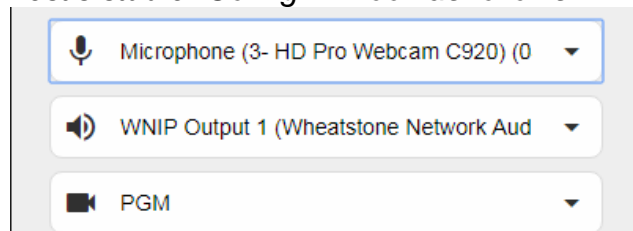
3. CONFIGURING AIRLINK AUDIO/VIDEO DEVICES

To configure AirLink Slot #1 audio/video devices proceed as follows:

In Step B do your selections according to the following guidelines:

- **INPUT AUDIO:** The audio input device must be a mix-minus input. If using an AoIP console, create an AirLink #1 phone/codec source and then use the mix-minus of that source as the audio input in Air Link.

  NOTE: If a mix-minus signal is not available, a good substitute is to use the microphone built into one of the cameras. Make sure to select a camera that's located inside the host's studio. Config will look as follows:
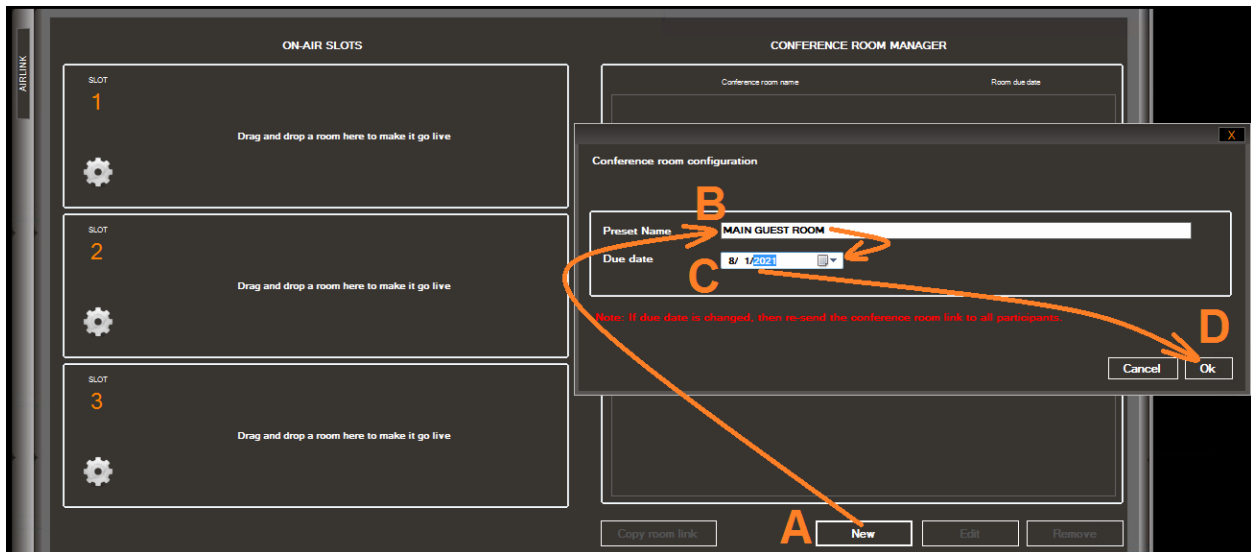
- **OUTPUT AUDIO:** The audio output device should be independent from other audio sources like web browsers or the radio automation software. This is important so that the board op will be able to control AirLink #1 audio levels independently of any other audio sources playing in the same PC.

- **VIDEO RETURN:** By default the video device is set to 'PGM'. This will provide a return feed of the HDVmixer Output video.

  NOTE: In special circumstances the user may use an additional video camera to feed return video into AirLink #1. Please note that the user cannot share a camera device that's already in use by HDVmixer or any other software in the same PC. So an additional camera source is needed.

To configure Slots #2 and #3 repeat the steps above but using buttons D & E.

4. CREATING AN AIRLINK ROOM

To be able to share room links with guests and remote hosts, we'll need to first create at least one room. Proceed as follows:
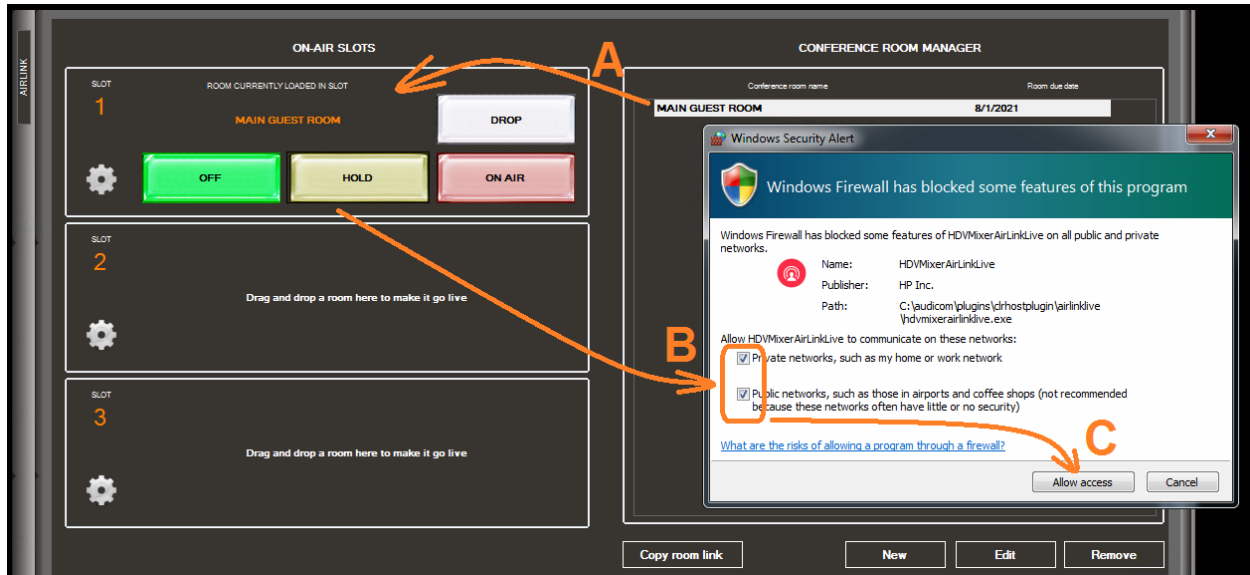

Each room has an expiration date. This allows the broadcaster to share links that will automatically expire soon after an interview has ended. Limiting any potential misuse.

NOTE: The maximum due date for any room is one year into the future.

5. ASIGNING AN AIRLINK ROOM TO A SLOT

To be able to use a room on-air the user will need to drag&drop the room he intends to use to one of the AirLink Slots. In the following example we see how room 'MAIN GUEST ROOM' was dragged to Slot #1:
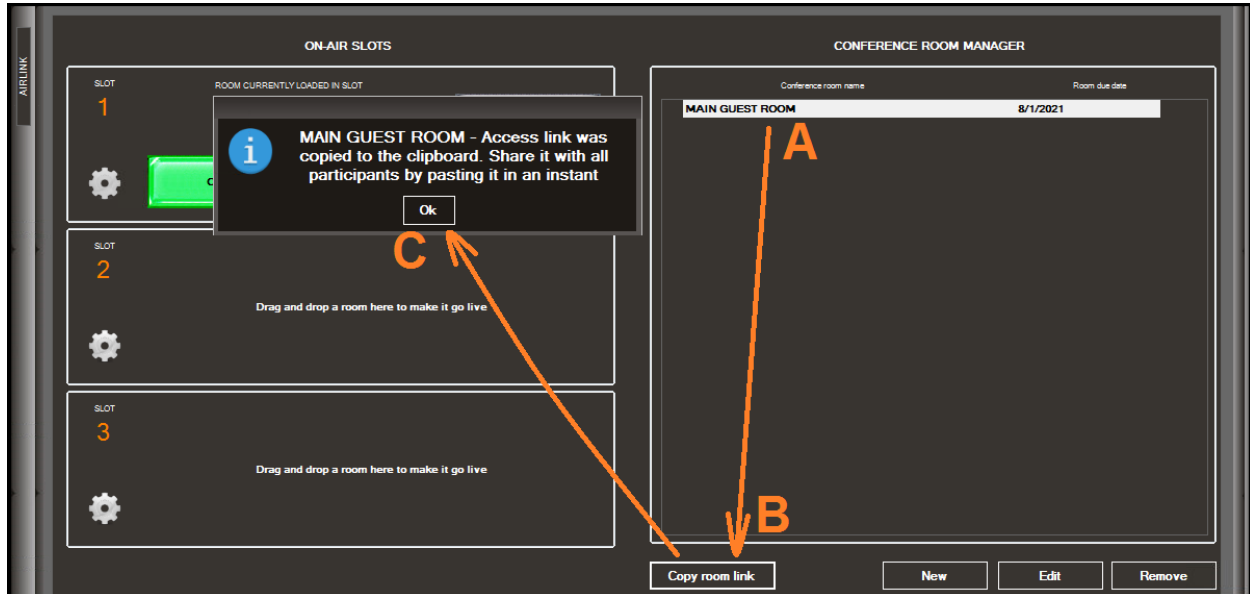

Once a room is assigned to a slot the user can control the state of room as follows:

- OFF: Studio end will have audio of all the remote guests in the room. Remote guests will only hear and see each other.

- HOLD: Remote guests will have audio and video return from the studio. They only see each other, no audio or video feed from other AirLink Slots that may be on-air.

- ON AIR: Same as HOLD, but remote guests will also have audio & video feed from all other AirLink Slots that are also on-air.

- DROP: Once the room is no longer in use, this button will unload the room from the Slot.

NOTE: The first time that a ROOM is dropped to a Slot a Window's firewall warning will show up. Make sure to select the two options seen above in B and then proceed to C.

6. SHARING AN AIRLINK ROOM

Finally we need to share an AirLink ROOM with remote users. This is done by following these steps:
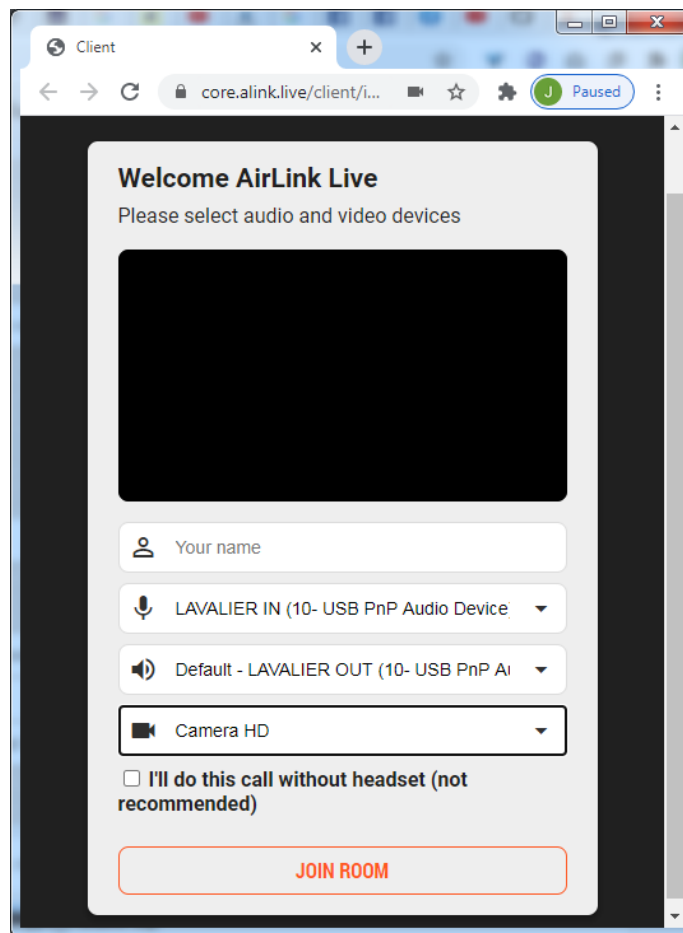

After Step C the link to the room can be pasted using Ctrl-V or by right-clicking and selecting 'Paste'. These links can be shared by instant messenger, email or any other text communication medium.

7. OPENING AIRLINK LINKS

The remote user should open these links in an approved web browser. As of this writing we support: Google Chrome, Safari, Microsoft Edge and Firefox.
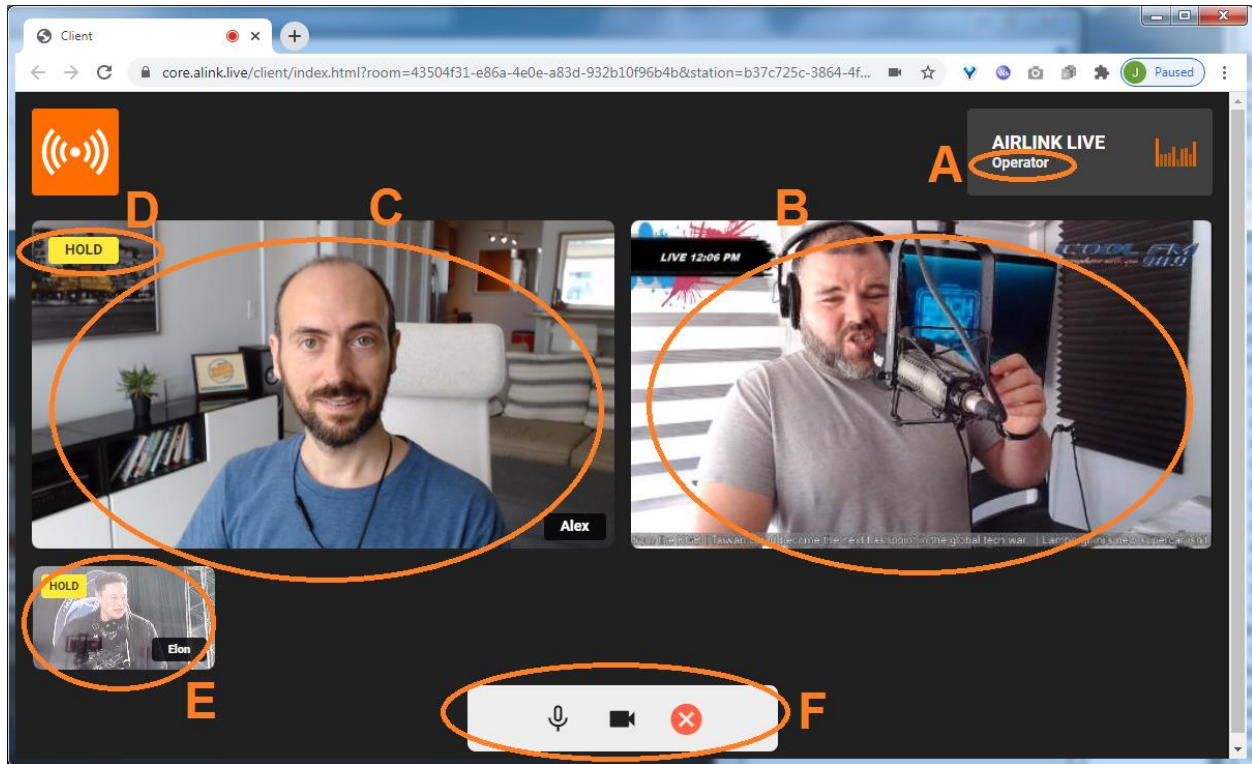
The remote user will be asked for permission to use his camera and microphone. This security configuration does change from device to device. We suggest that producers experiment on various devices so that they can help diagnose how to disable these security configurations when remote users ask them for help.

Finally he will be asked to confirm his name (optional), audio device selection and the camera that he would like to use. This is an example of what the remote user will see:

Once he is ready to connect, he must press the JOIN ROOM button.

Upon connection, the remote user will then login to the room with the following UI:
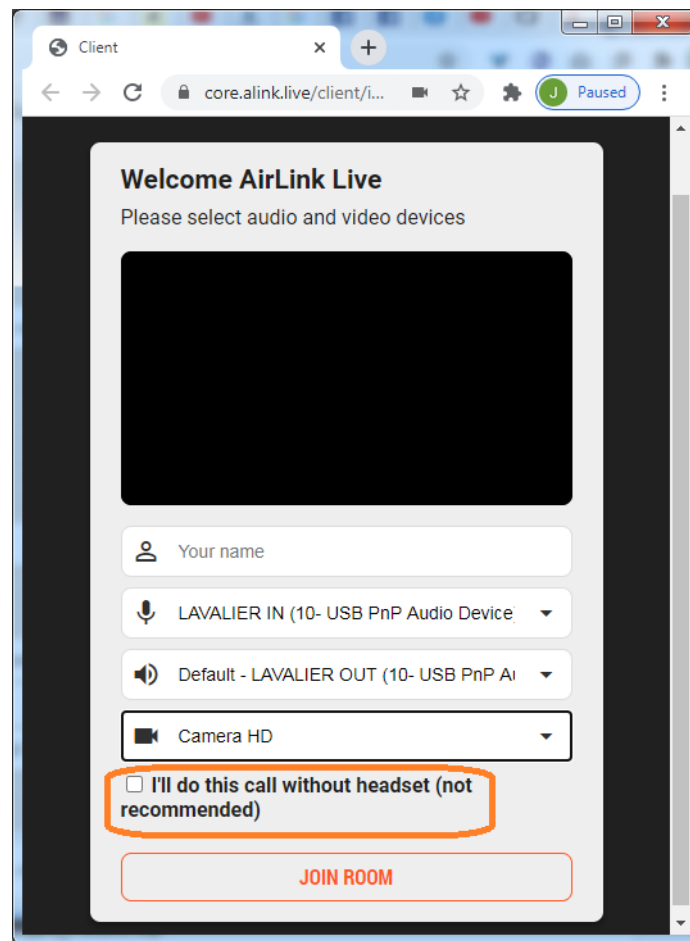

Where:

- A: Shows 'Operator' if the room is assigned to an AirLink slot on the station's end

- B: Shows low bitrate PGM video output from HDVmixer to the remote users

- C: Each remote user will see himself here to adjust his camera angle and lighting

- D: Shows the remote users the current room's status: OFF/HOLD/ON-AIR

- E: All other room participants will show up in the lower portion of the frame. When multiple Slots are on-air simultaneously, then all participants that are on-air will show as well.

- F: user control panel. Mic Mute button, camera privacy button and disconnect button.

8. AUDIO CONSIDERATIONS FOR REMOTE USERS

AirLink is a professional broadcast codec device. Therefore, it expects the remote user to be wearing headphones. This allows for the use of a true two-way high quality audio link. Avoiding the audio artifacts produced by echo canceling algorithms.

Nevertheless, we do know that sometimes the remote user may not have ear buds or a headset at hand. To cope with this emergency situation we've implemented echo canceling algorithm that can be enabled on a user by user case.

When the remote user is going to use a phone in speakerphone mode, then make sure he checks the option 'I'll do this call without headset (not recommended)' as per the following picture:
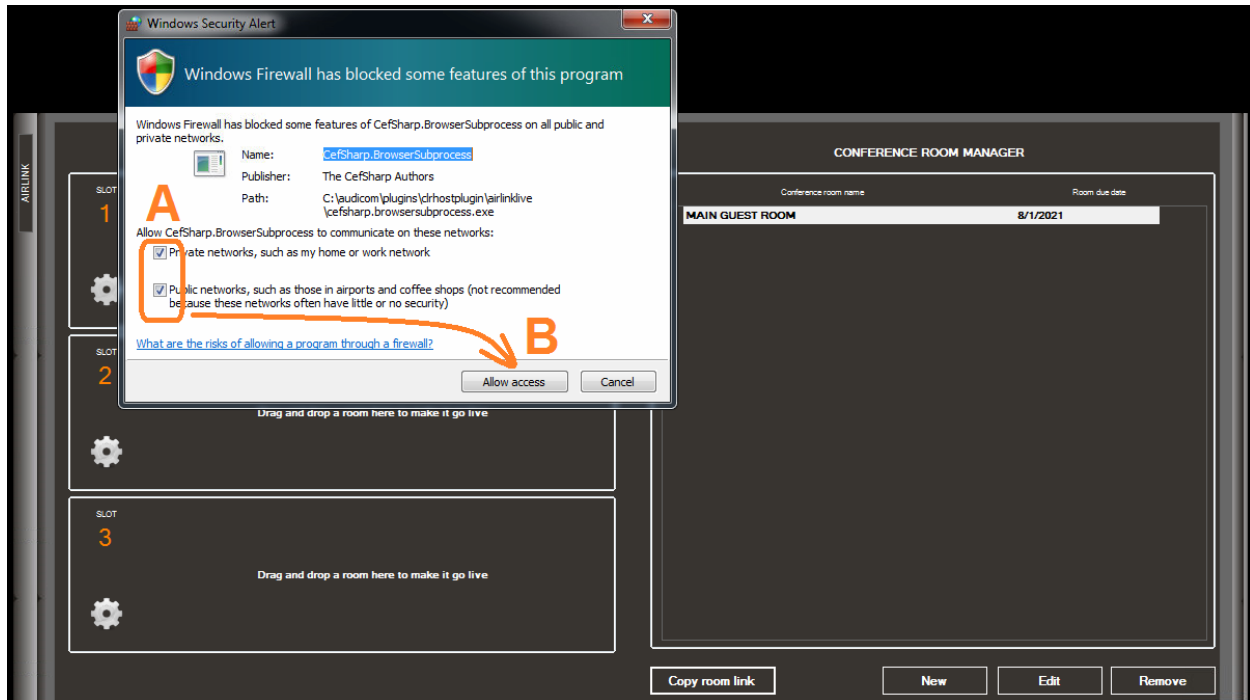

NOTE: When this option is checked, the echo canceling will be enabled. Thus AirLink's audio quality will be only marginally better than any other Internet conferencing app. We discourage its use whenever is possible.
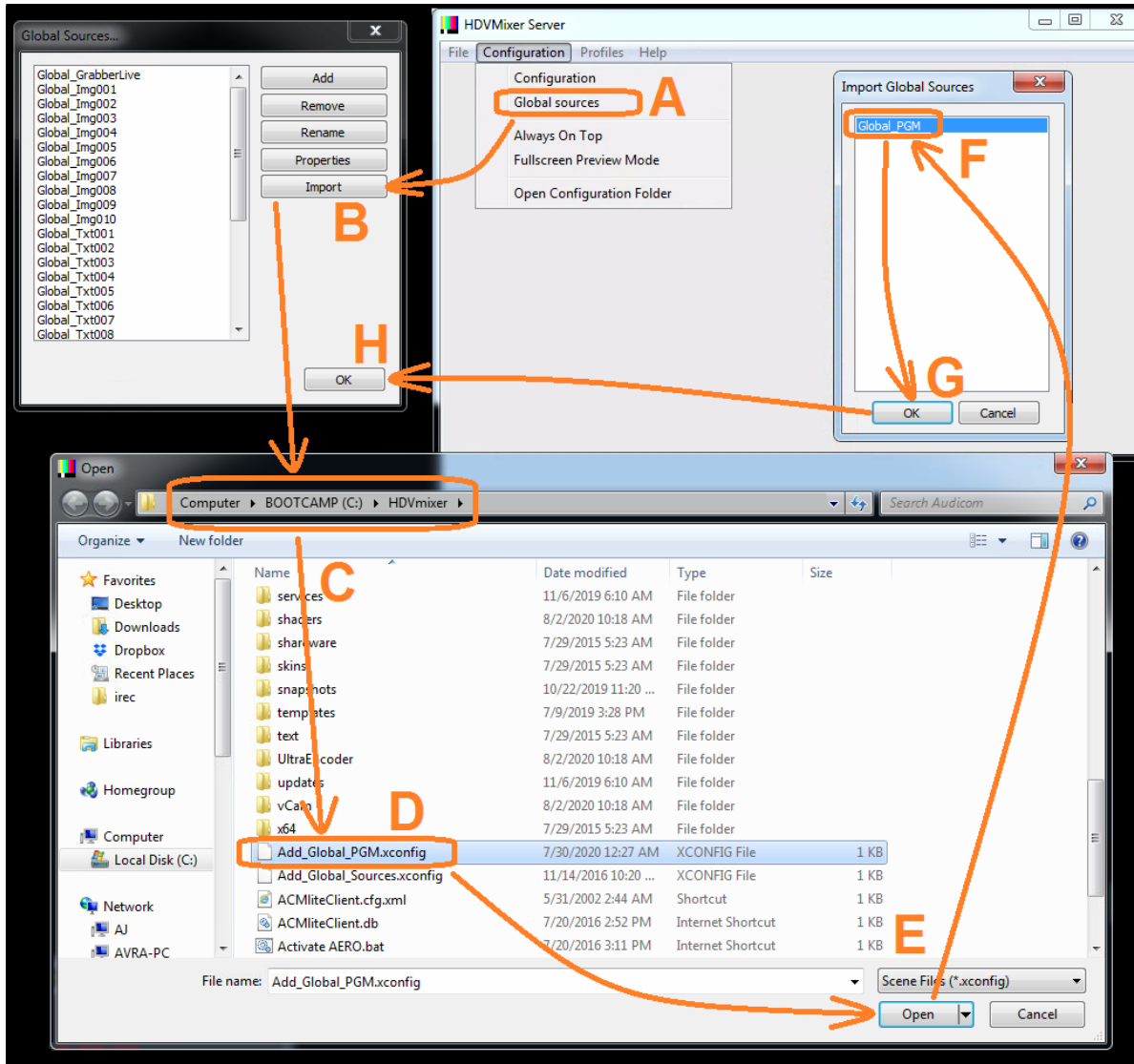
9. ADDITIONAL FIREWALL CONFIGURATION

There is a last firewall authorization that's needed. This will only pop-up the first time that a ROOM has been assigned to a Slot and that a remote user connects to that room.

As per the following picture, make sure to select both options in A and then press B:

10. PGM VIDEO OUT CONFIG (FOR UPGRADES ONLY)

Any customer that has already installed HDVmixer previous to 8/1/2020, version v20.02.7516 will need to exercise the procedure depicted below for the 'PGM' HDVMIXER Output video to work with AirLink:

After performing the above configuration make sure to save the changes:
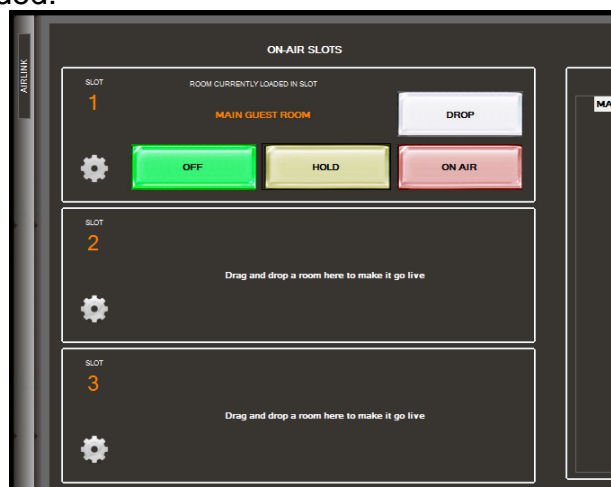
11. ADDING AIRLINK VIDEO SOURCES

Any customer that has installed HDVmixer previous to 8/1/2020, version v20.02.7516 or those willing to add additional AirLink slots will need to exercise the following procedure: Select the video source intended to be used for AirLink. If multiple AirLink Slots will be used, then multiple video sources will be needed. In the following example we are using Video Source 009 for AirLink's Slot 1 video:
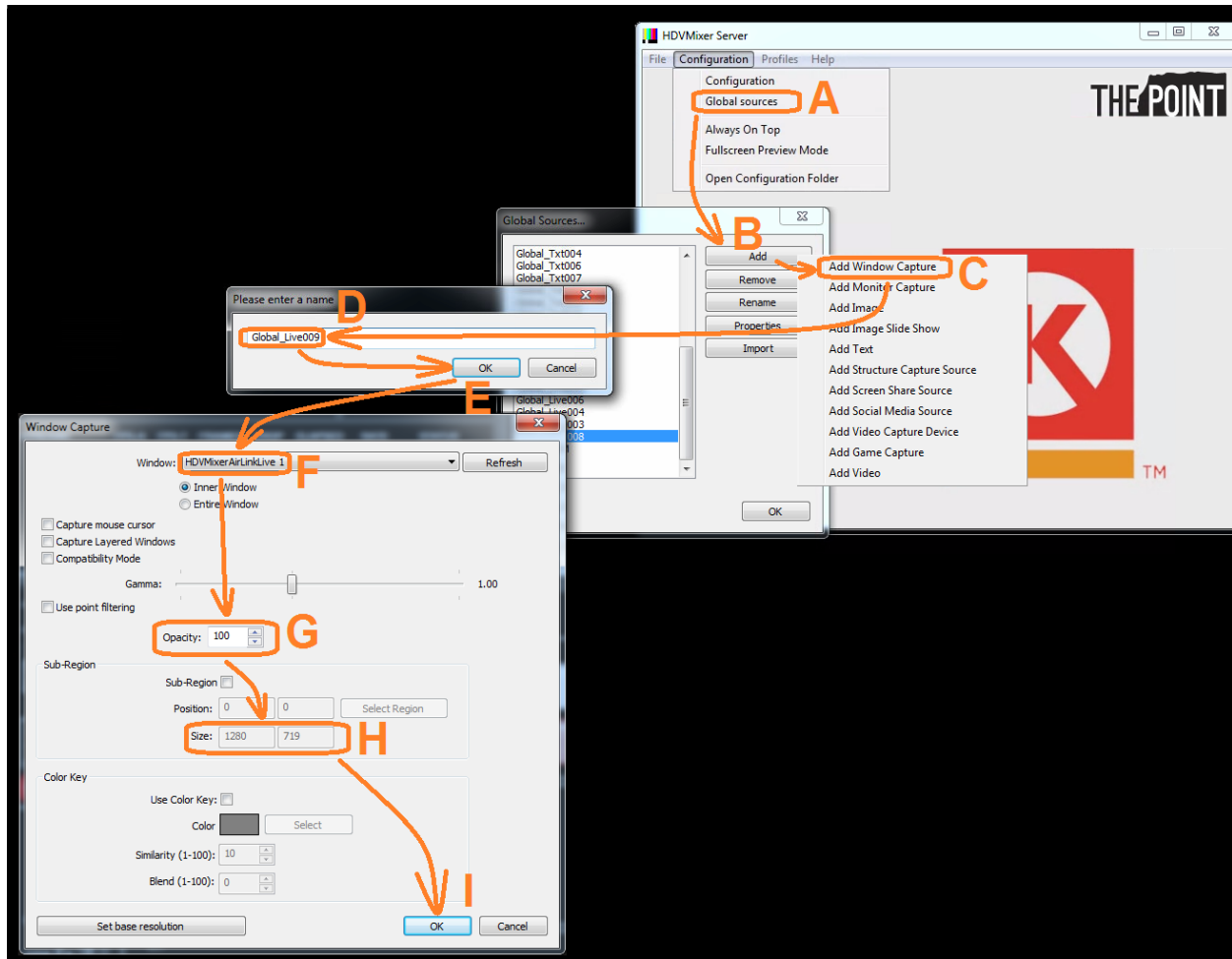

On Step B double click on the source's caption to change its name. Press <ENTER> to confirm the name change.

On Step C select any SET that's not the current one on-air. In the above picture the SET named 'CAM_C' is on-air, so we choose to click on 'CAM_B'. By doing this, the new source name will be permanently stored in the system.

Finally, to assign AirLink's Slot 1 to the video source we first need to confirm that the Slot has a ROOM loaded:

Then proceed as follows:

After performing the above configuration make sure to save the changes:

Now restart HDVMIXER to confirm that AirLink is operating as intended.