

WPC Technology Documentation

2022 Updates

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1. Westminster Presbyterian Church Technology Documentation

The Westminster Presbyterian Church Technology Documentation is a reference for the technology located in Mackey Hall used for livestreaming services.

1.1 Notes

This document is a work in progress. Please ignore if there is any grammatical mistakes and let me know so that we can correct them accordingly.

For any questions or comments, please [email me](#).

1.2 Licenses

1.2.1 Westminster Presbyterian Church Technology Documentation Project

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2. Technology Documentation

2.1 Introduction

Follow the basic steps below as a guide to managing a service. These are all linked on the left bar, as well as some other help pages.

[2.1.1 1. Switching to COW Internet](#)

[2.1.2 2. Setting Up and Powering On Computer / Cameras / Sound System / Projector](#)

[2.1.3 3. Fixing Proclaim for OBS Studio](#)

[2.1.4 4. Starting Recording and Livestreams](#)

[2.1.5 5. During the Service](#)

[2.1.6 6. Stopping Recording and Livestreams](#)

[2.1.7 7. Shutting Down and Packing Up Computer / Cameras / Sound System / Projector](#)

[2.1.8 8. Switching Back To Church Internet](#)

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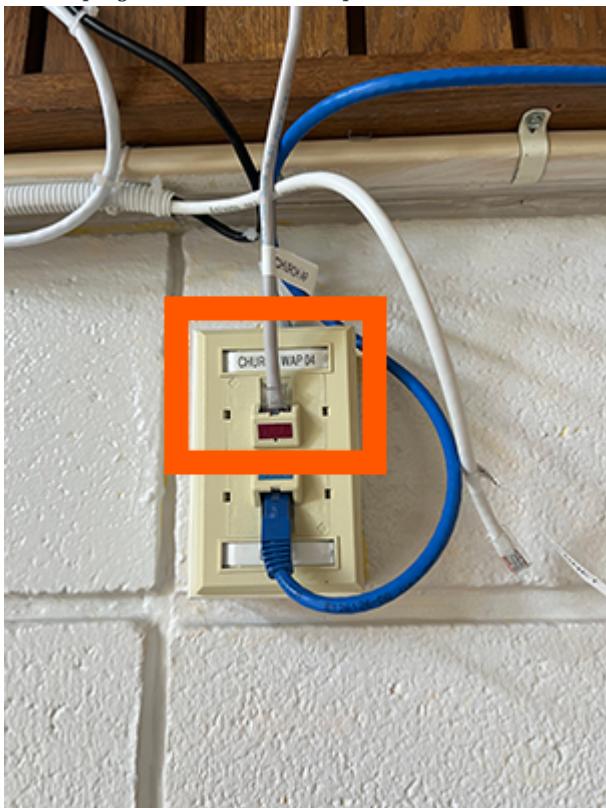
2.2 Instructional Pages

2.2.1 Switching The Computer To COW Internet

For livestreaming, we use the College of Wooster internet as it gives up to 1000/1000 Mbps (gigabit speeds), rather than the Church MCTV speeds of up to 50/5 Mbps. Follow the instructions below to switch the internet.

1. UNPLUG CHURCH AP

- Go to the back of room where access points are (next to the left kitchen door, underneath the PTZ camera) and unplug the top grey cable labelled “Church AP” from the ethernet ports on the wall
- This unplugs the church access point



2. RETRIEVE MASTER KEY

- Go to the copy room and get master key from the key box

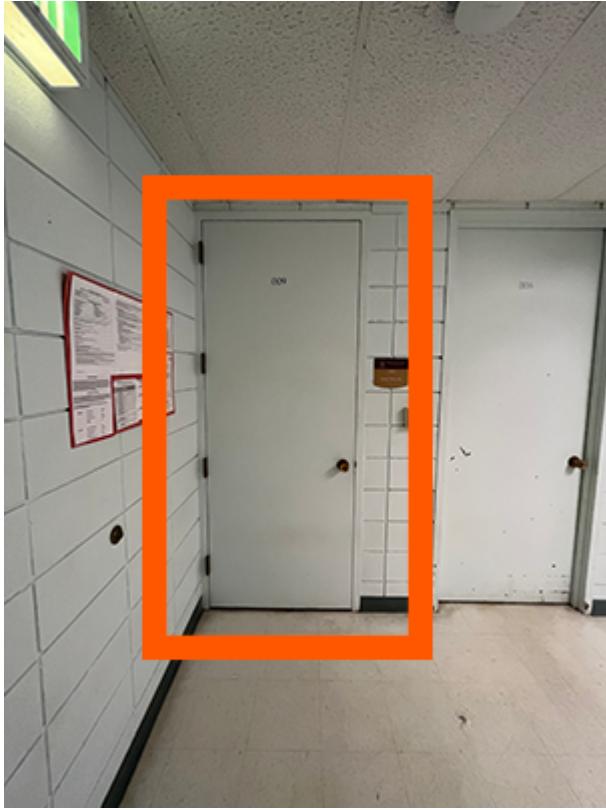


- The key box passcode is the Wooster area code
- The key is labelled "All Interior Doors"



3. VISIT ELECTRICAL CLOSET

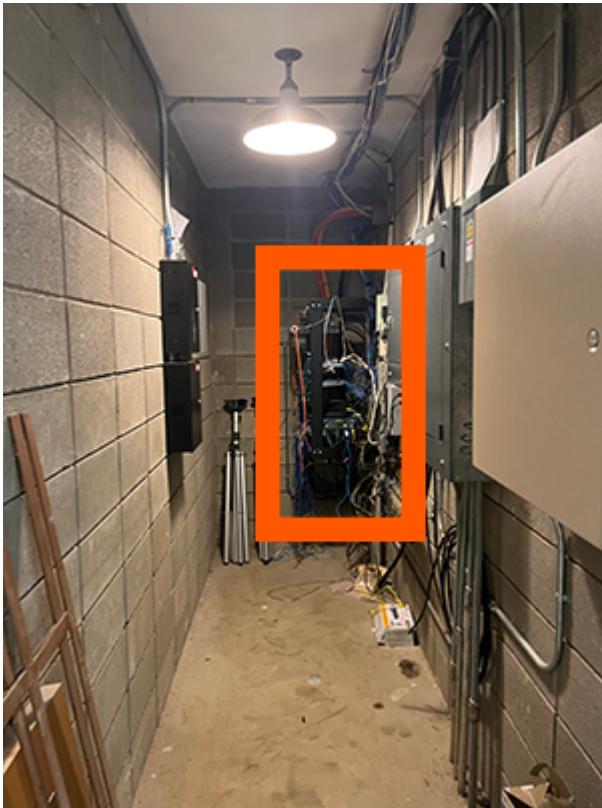
- Go to the electrical room in The Meeting Place
- This is directly to the left right inside the main door to The Meeting Place



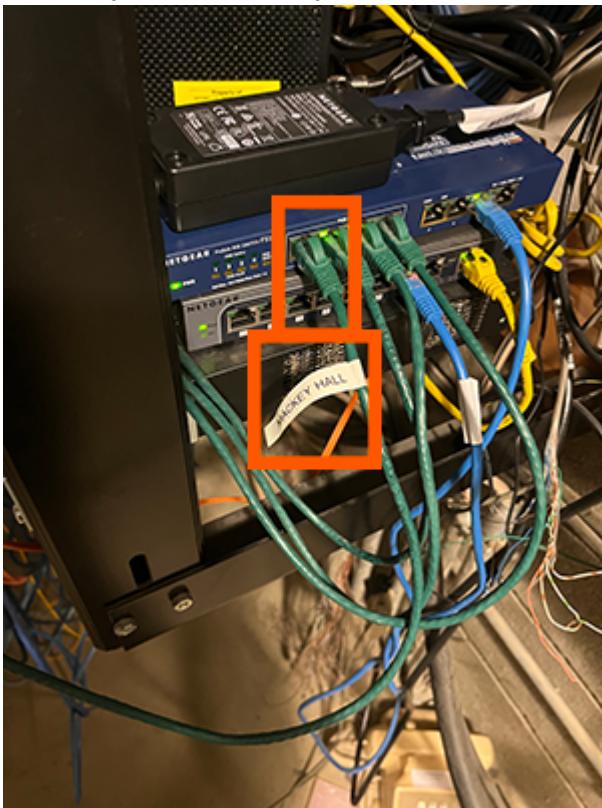
4. UNPLUG MACKEY HALL CABLE

- Unplug the green cable labelled "Mackey Hall" from the church network switch

- The network rack is straight inside the at the back of the closet



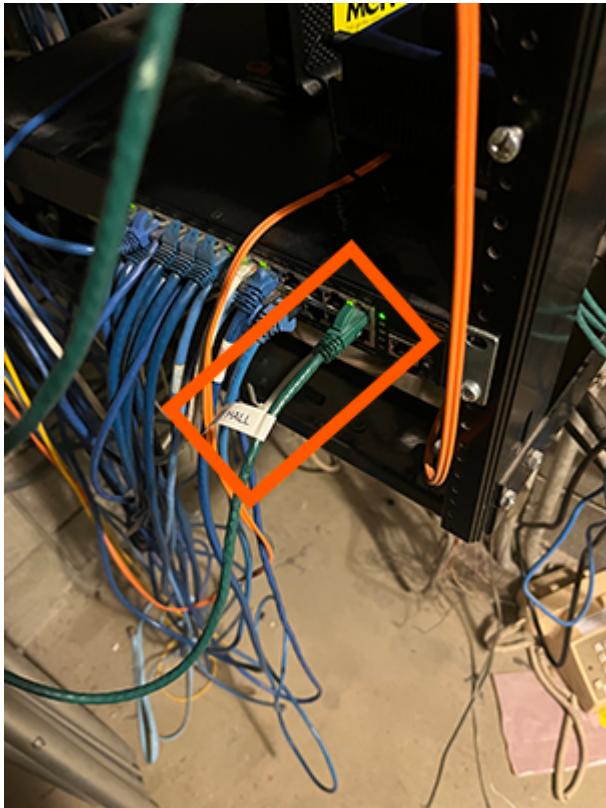
- The cable you need is normally the far left cable in the set of four green cables plugged into the Church's POE network switch



5. PLUG-IN MACKEY HALL CABLE

- Plug the same cable into the COW switch
- The COW switch is the bottom most item on the rack

- You can plug the cable into any port on the switch



6. RETURN KEY

- Return the master key to the box in the copy room

7. RETURN TO MACKEY HALL

- Return to Mackey Hall to complete the final step

8. PLUG-IN COMPUTER ETHERNET CABLE

- Plug the white cable labelled "Computer Ethernet" into the top port that was left empty in step 1



You have now switched the computer's ethernet to the COW network.

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2.2.2 Setting Up and Powering On Computer / Cameras / Sound System / Projector

Follow the instructions below to get the computer, cameras, sound system, and projector ready to use for the service.

1. Uncover Computer and Monitors

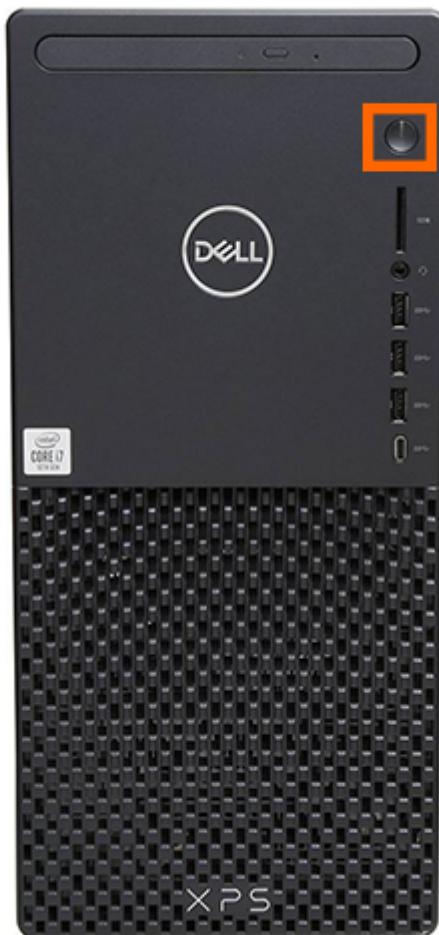
- Remove the cover from the computer desk.

2. Switch on Power Strip

- Turn on the power strip located behind the computer.
- The computer will click on, but then click right back off when you turn on the power strip. This is its normal behavior.
- The three monitors will also light up with the Dell logo.

3. Power on the Computer

- Press the power switch located at the top right of the desktop.
- The switch is labelled as to find it easier.



4. Log On to Computer

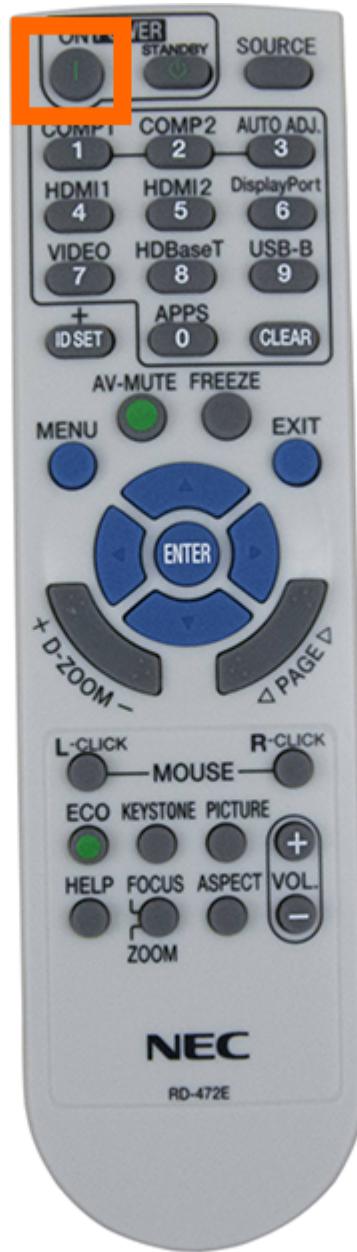
- Log on to the computer using the Westminster account and the pin located on the back of computer.

5. Power on Projector

- Retrieve the remote from the second to bottom drawer on the sound system rack.



- Get somewhere near the projector and press the remote's "On" button to power on the projector



- Return the remote to the drawer.

6. Open Projector Screen

- On the wall opposite the computer station, underneath the projector, switch the projector screen switch to the down position to open the projector screen.

7. Power on PTZ Camera

- Retrieve the remote for the rear PTZ camera.

- Get somewhere near the camera and press the power button



- The left light on the camera will turn off and it will start moving to find it's home position.



- Return the remote to the drawer.

8. Choose Mevo Cameras To Use

- From the Mevo / iPad storage location, choose which Mevo Cameras you want to use.



- Unplug the cameras you chose and put them on the stands located to the right of the sound system rack.

9. Power on and Place Mevo Cameras

- Power on the Mevo Cameras by holding the power button until it beeps.



- After you power each of these on, you should be able to see them on the right desktop monitor.
- Place the cameras as you desire.
- The stands are located to the right of the sound system rack.

10. Retrieve and Turn on iPad

- Get the iPad from the storage location, power it on, and place it on the desk for later.



11. Turn on Sound System Amplifier

- Turn on the amplifier on the sound system rack to get sound output from the microphones.

- The amplifier is the third most bottom thing on the sound system rack.



- Press the power button in the bottom right of it. It will stay partway in and turn blue when on.

12. Connect iPad to Sound System

- Follow the steps [here](#) to connect to the sound system.

13. Set Out Microphones

- Place the pulpit microphone in the pulpit



- Verify the handheld and lapel microphones are in the pulpit.



- Retrieve the microphones for the piano and organ. They are located in the drawer with remotes in black bags.



- Place the piano and organ microphones.

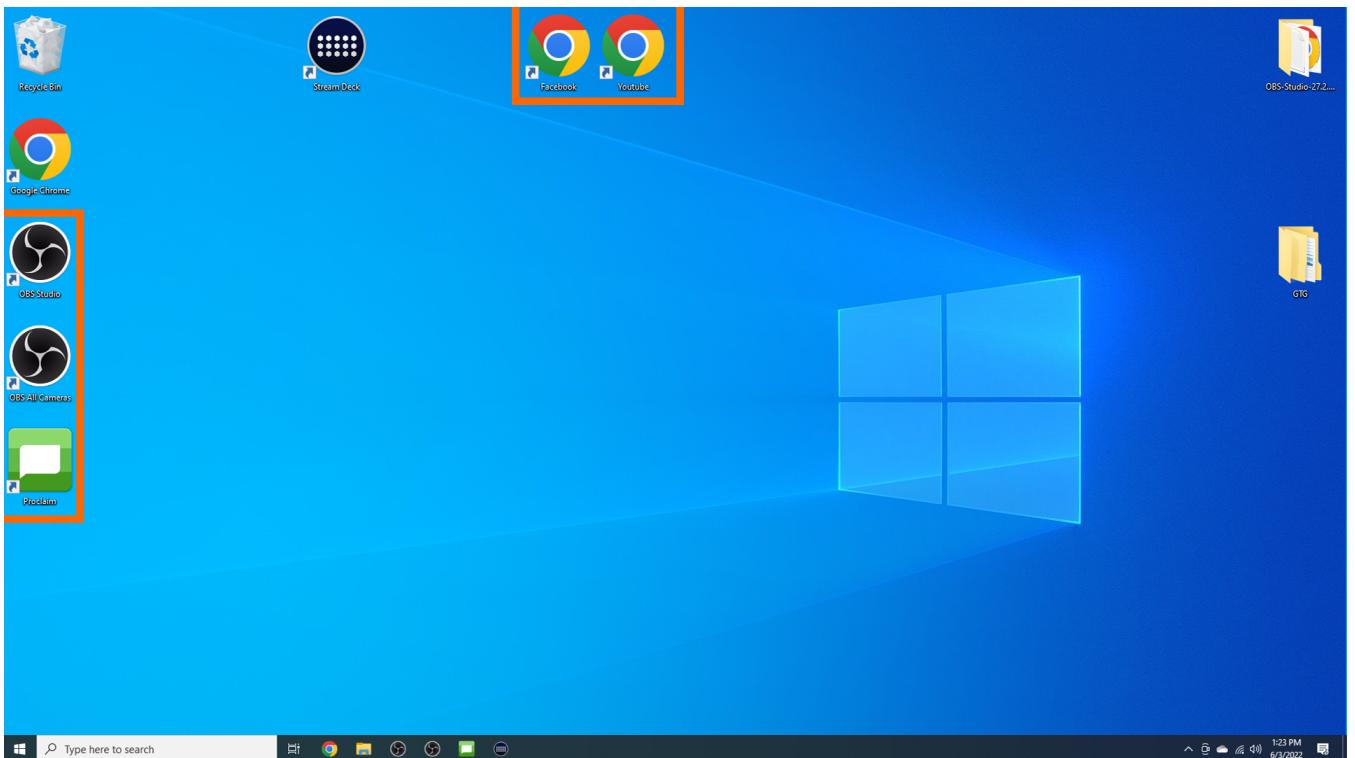


- The piano microphone will go in the piano once it is opened up. Just behind the music stand, approximately center. The cable is already attached to the piano microphone stand

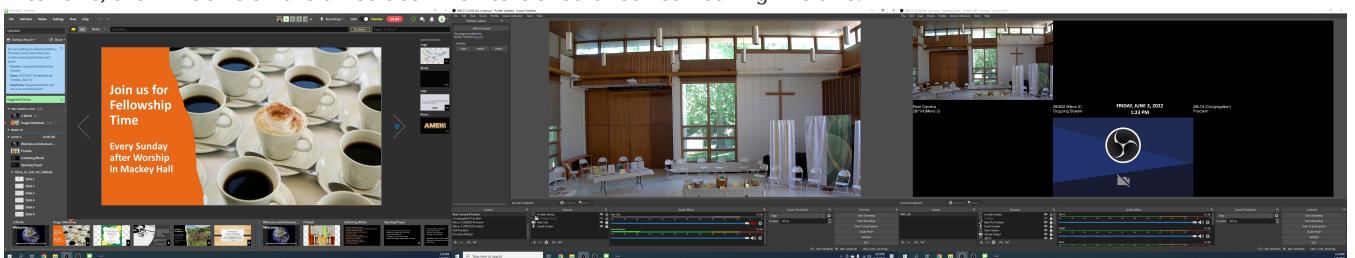
- The organ microphone will go near the desk pointed up toward the organ speakers above the chair closet. The stand is near the other microphone stand. The cable is on the floor near the sound system rack. Bring it under the door and connect it to the microphone.

14. Open Computer Programs

- On the computer open the following programs from the desktop.
- OBS Studio
- OBS All Cameras
- Proclaim
- Facebook
- Youtube



- Minimize the window for Google Chrome.
- After this, the windows on the three desk monitors should look something like this:



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2.2.3 Connecting iPad to Sound System

Follow the steps below to connect the iPad to the sound system to be able to control it.

1. Check Rack Power

- **If you came from the Setting Up and Powering On Computer / Cameras / Sound System / Projector page, skip this step.**
- The rack is usually left on, but it sometimes gets turned off. There is a red switch marked "Power." It will light up red when it is on.



2. Check Amplifier Power

- **If you came from the Setting Up and Powering On Computer / Cameras / Sound System / Projector page, skip this step.**
- Turn on the amplifier on the sound system rack to get sound output from the microphones.

- The amplifier is the third most bottom thing on the sound system rack.

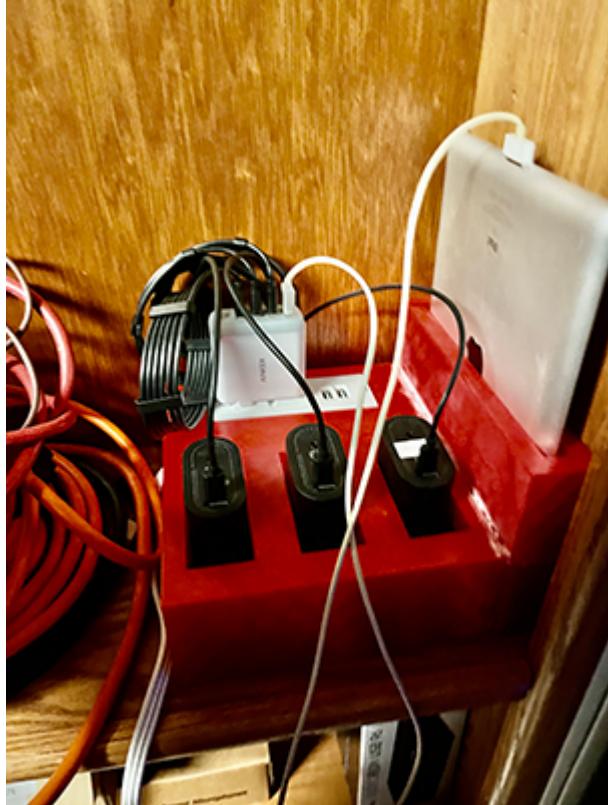


- Press the power button in the bottom right of it. It will stay partway in and turn blue when on.

3. Retrieve and Turn on iPad

- If you came from the Setting Up and Powering On Computer / Cameras / Sound System / Projector page, skip this step.**

- Get the iPad from the storage location, power it on, and place it on the desk for later.



4. Open Master Fader

- Unlock the iPad and open the Master Fader App. You will likely have to swipe to the second screen.

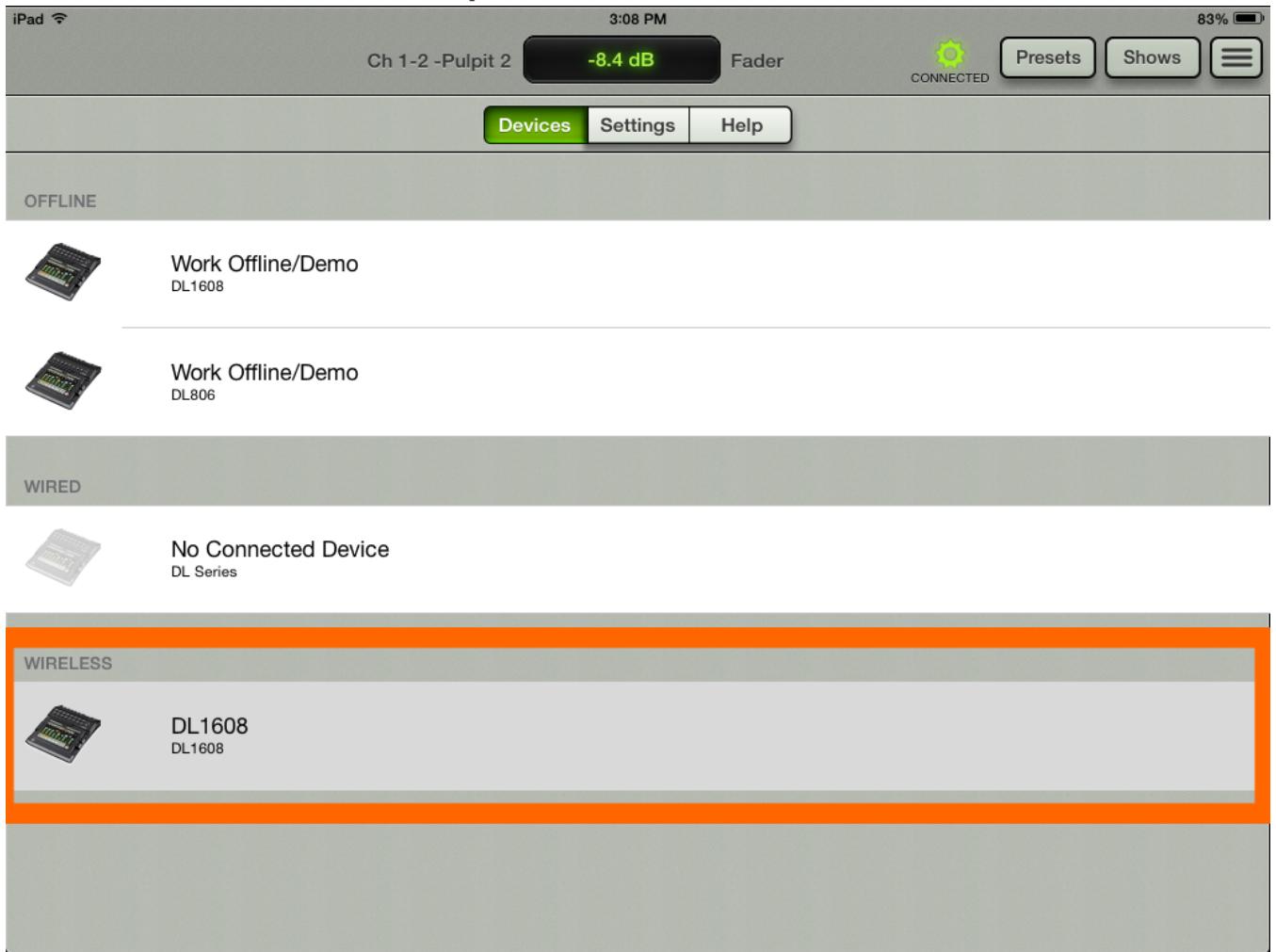


- In Master Fader, click the gear wheel in the top right corner.



5. Select DL1608

- At the bottom of the screen, click the wireless option DL1608.



- The gear icon on the top right should now be green with "Connected" underneath it.
- Press the gear icon once more to return to the homepage of Master Fader.

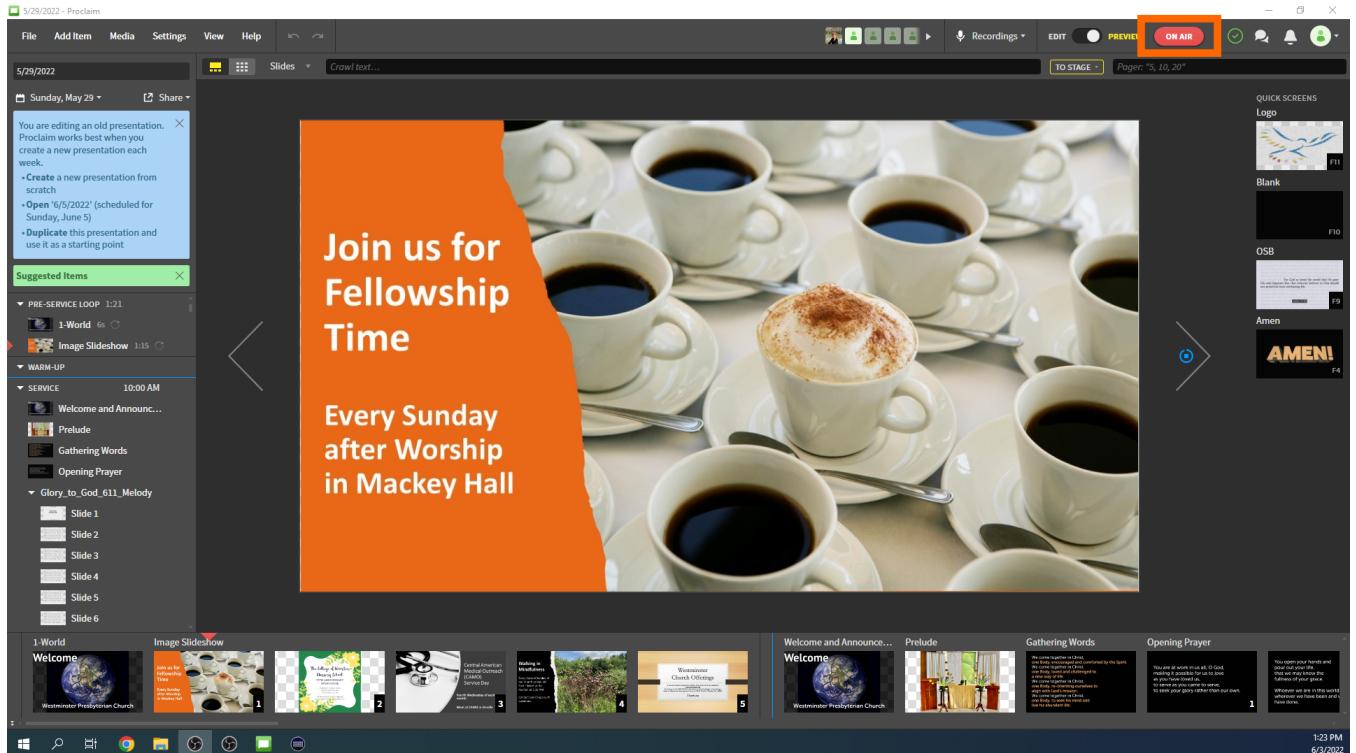
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2.2.4 Fixing Proclaim for OBS Studio

OBS Studio and capturing Proclaim is currently having some issues that an effective fix has yet to have been found. Each time you put Proclaim in "On Air" mode OBS Studio is not picking it up and capturing the slides. Each time you take Proclaim out of and restart "On Air" mode you will have to do this fix. Follow the instructions below to get the capture for livestreaming.

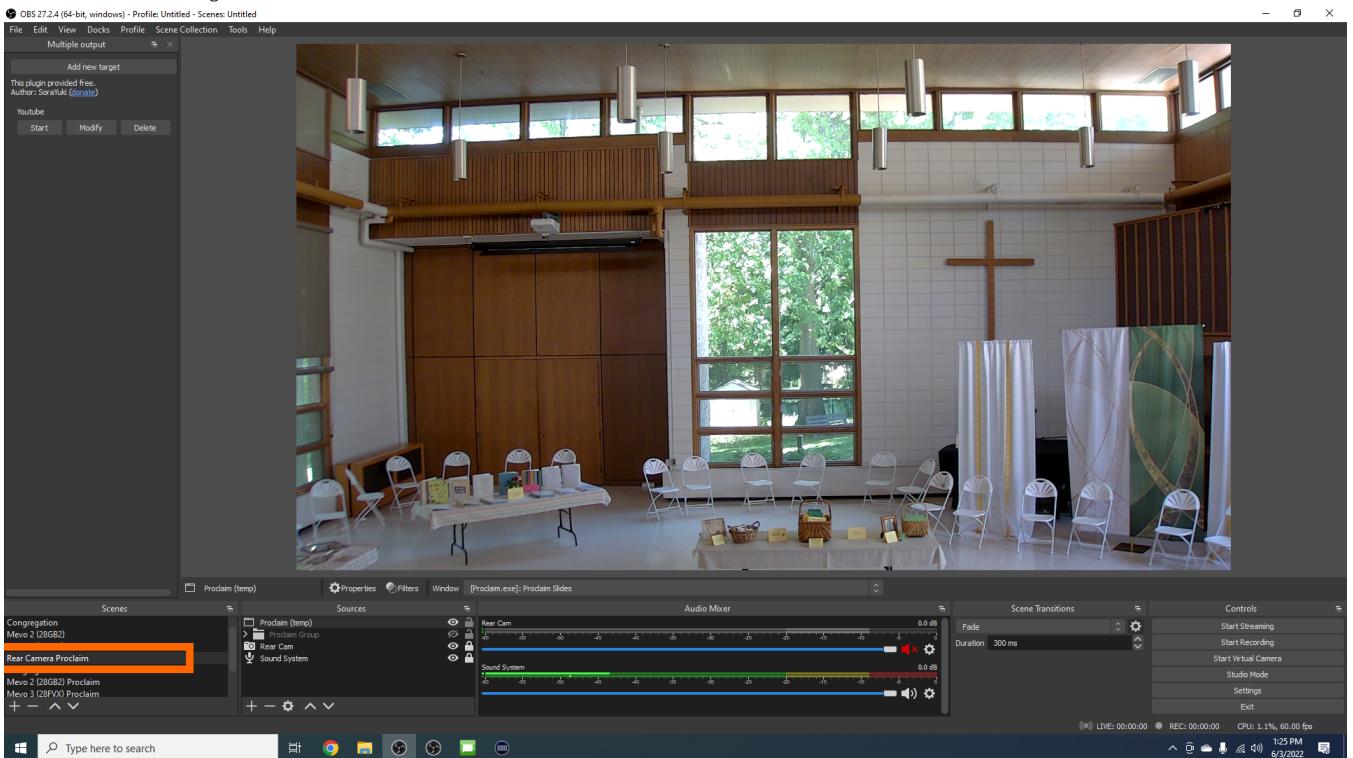
1. Start "On Air" Mode

- With Proclaim open to the current presentation, start "On Air" mode. This can be done either with OBS open or closed.

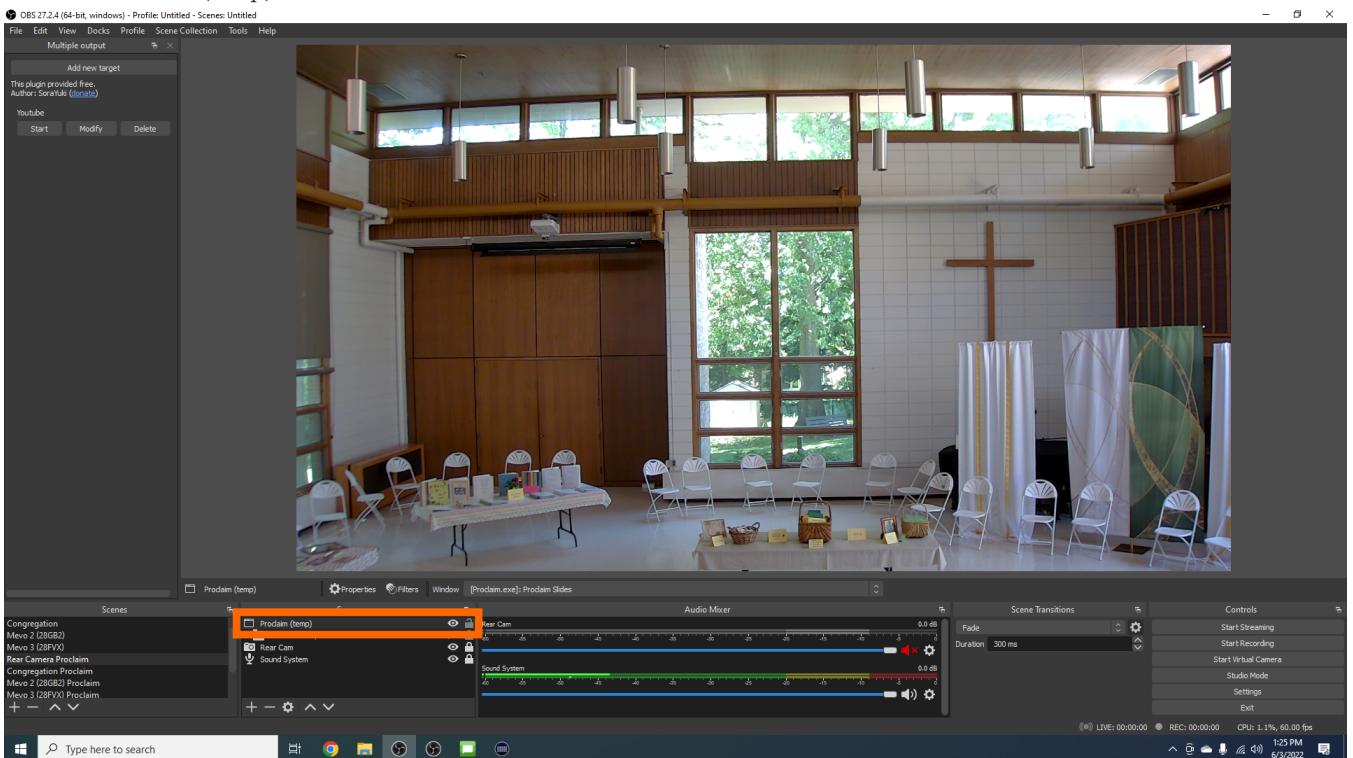


2. "Rear Camera Proclaim" Fix

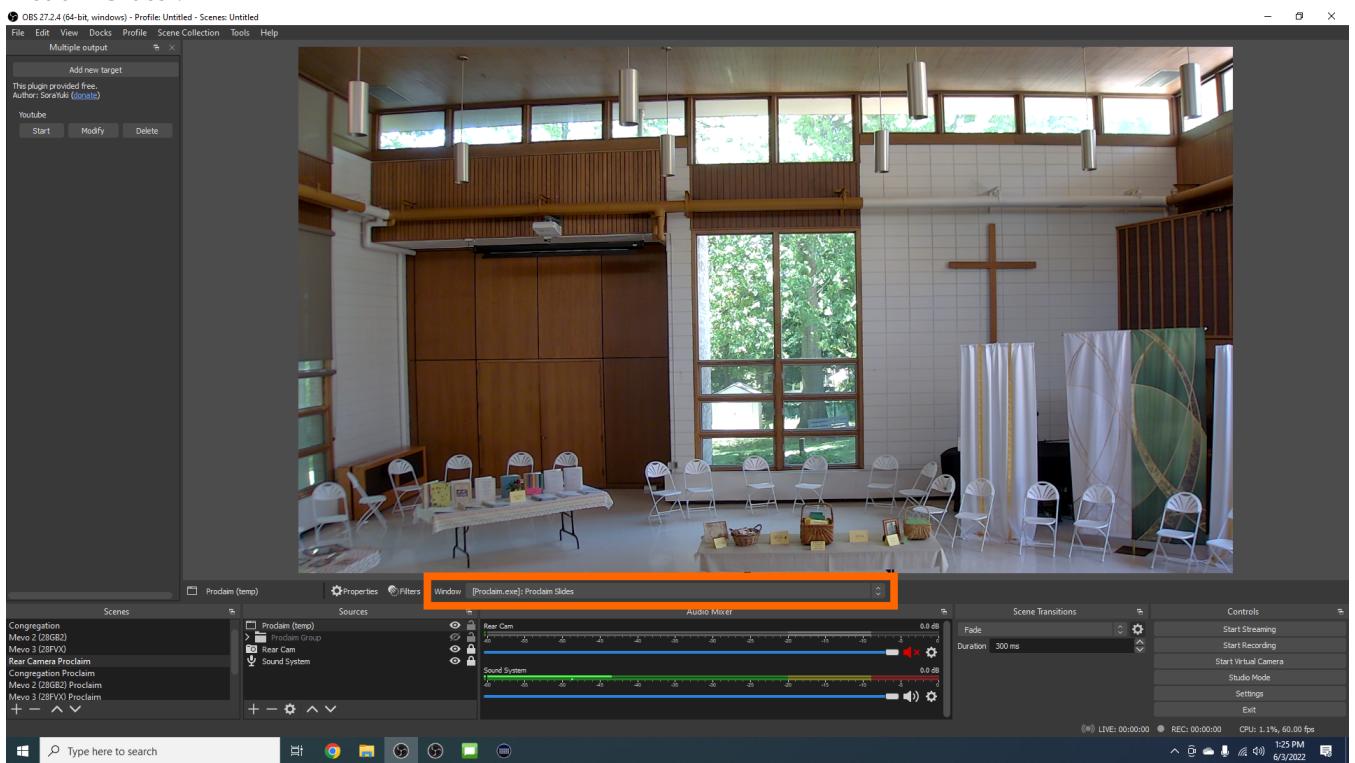
- In OBS Studio, navigate to the scene "Rear Camera Proclaim"



- Click on "Proclaim (temp)".



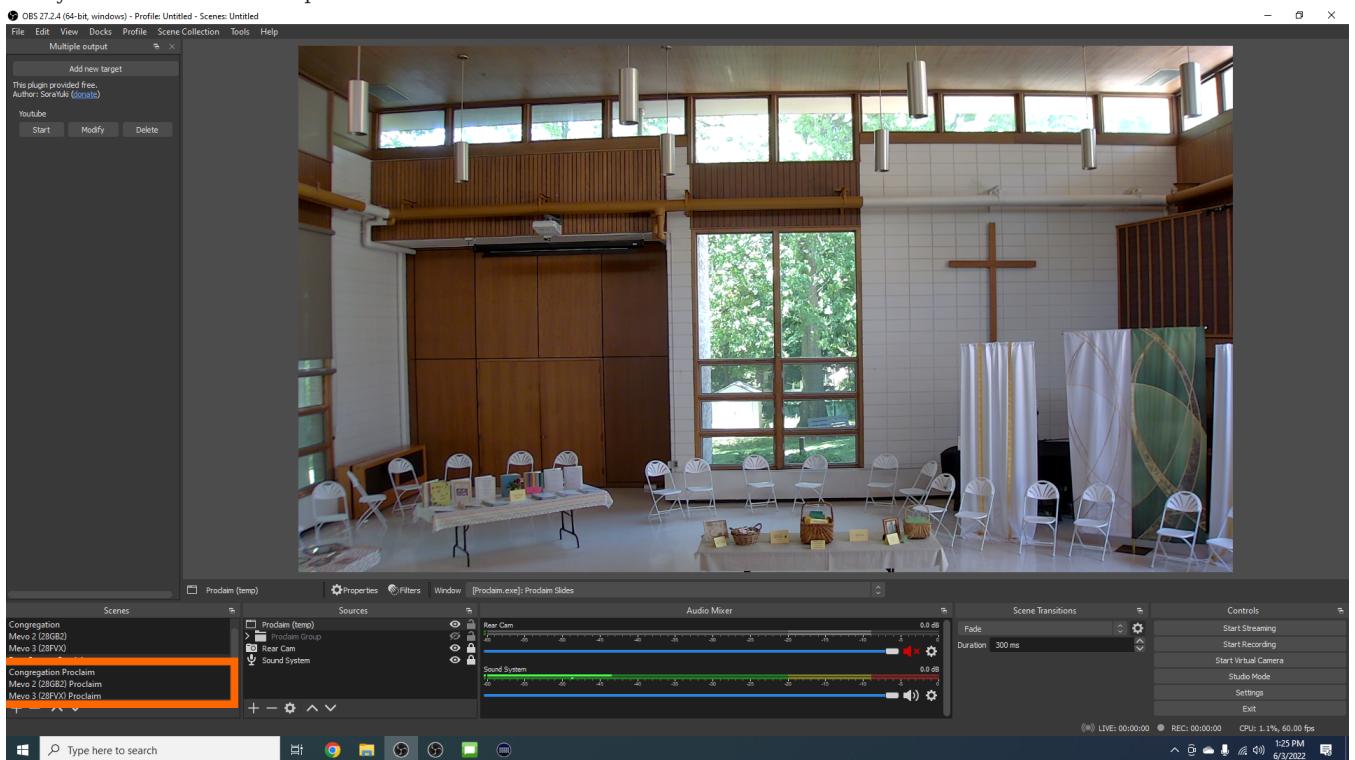
- It brings up a box between where just above the scenes. Click the dropdown for "Window" where it says "[Proclaim.exe] Proclaim Slides".



- Click on one of the listings in the dropdown that says "[Proclaim.exe] Proclaim Slides". There will be two. If one brings up a black screen, click on the other one.

3. Verify Mevo Scenes

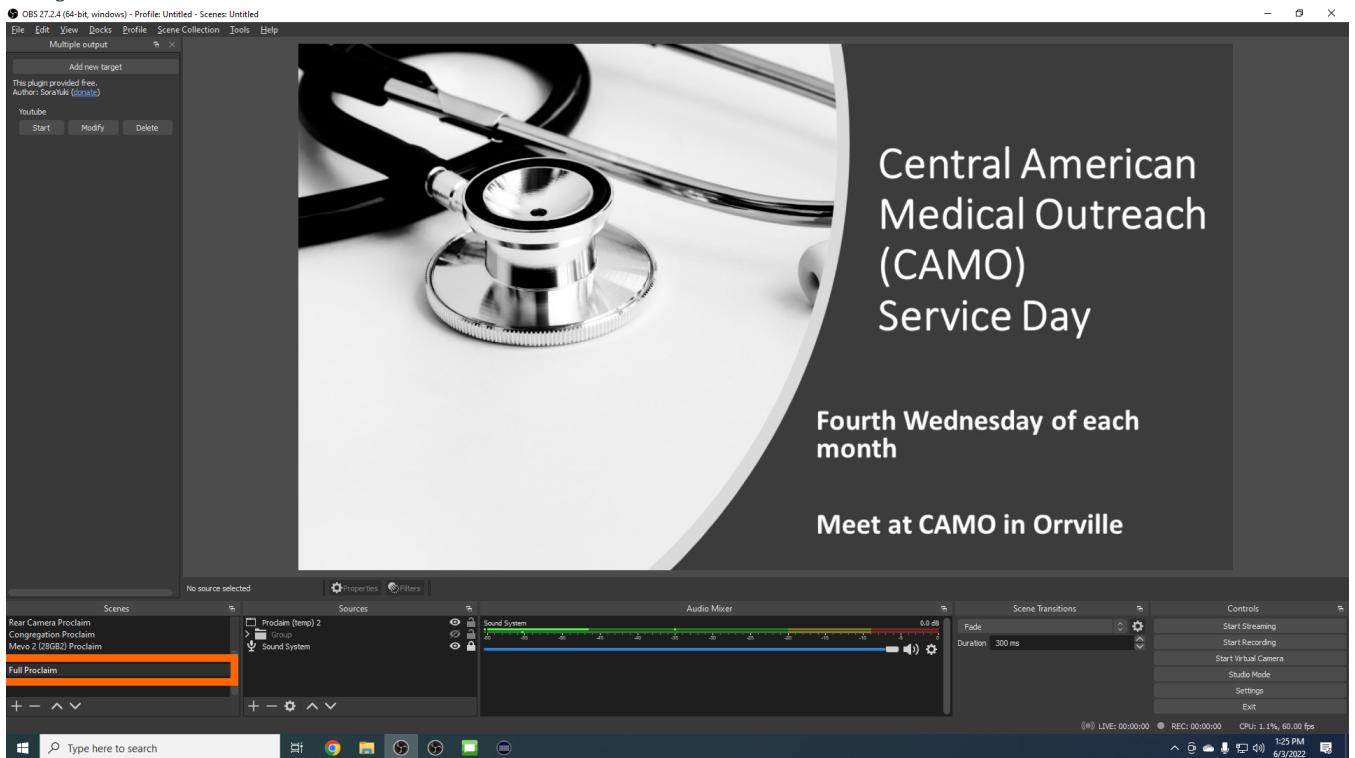
- Verify that Proclaim shows up in the three Mevo scenes.



- If not, follow step 2 again in the three Mevo scenes.

4. "Full Proclaim" Fix

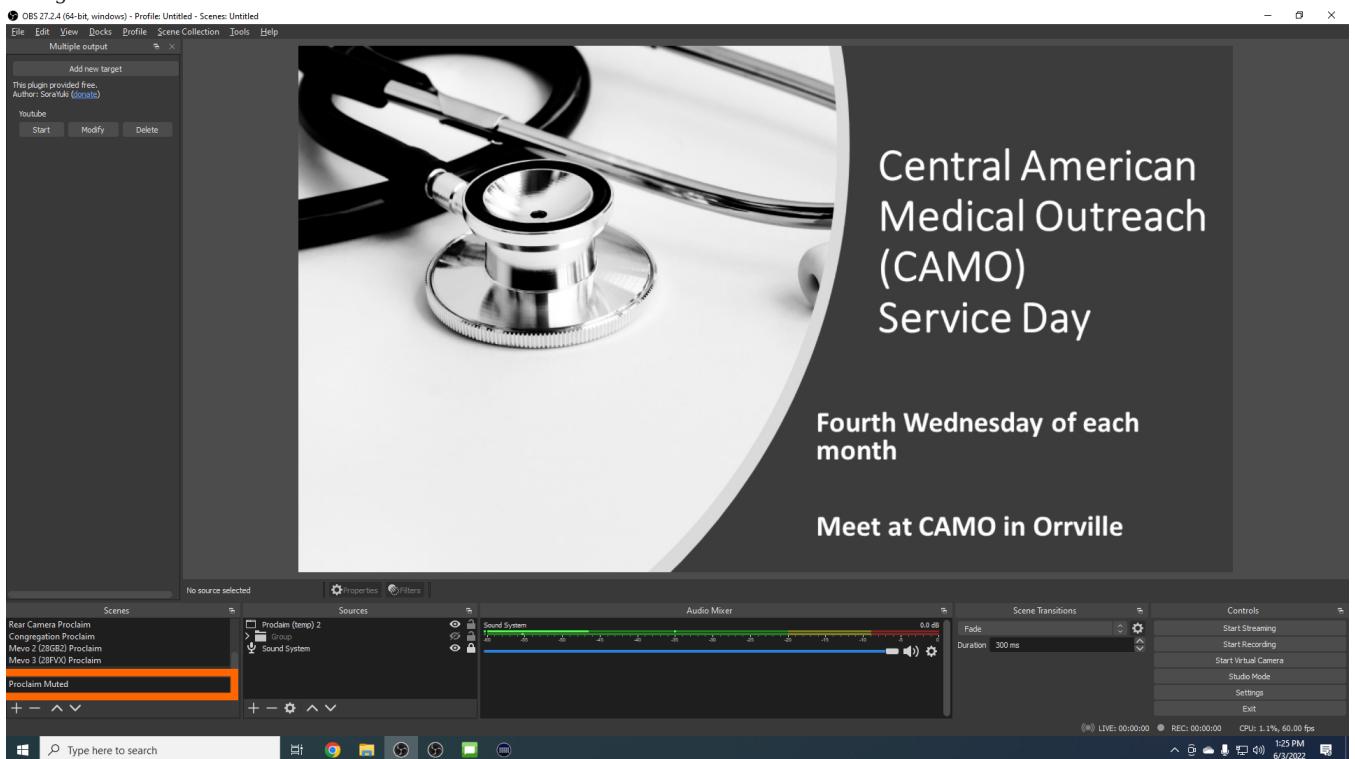
- Navigate to the "Full Proclaim" scene.



- Follow step 2 again for the "Proclaim (temp) 2" item.

5. "Proclaim Muted" Fix

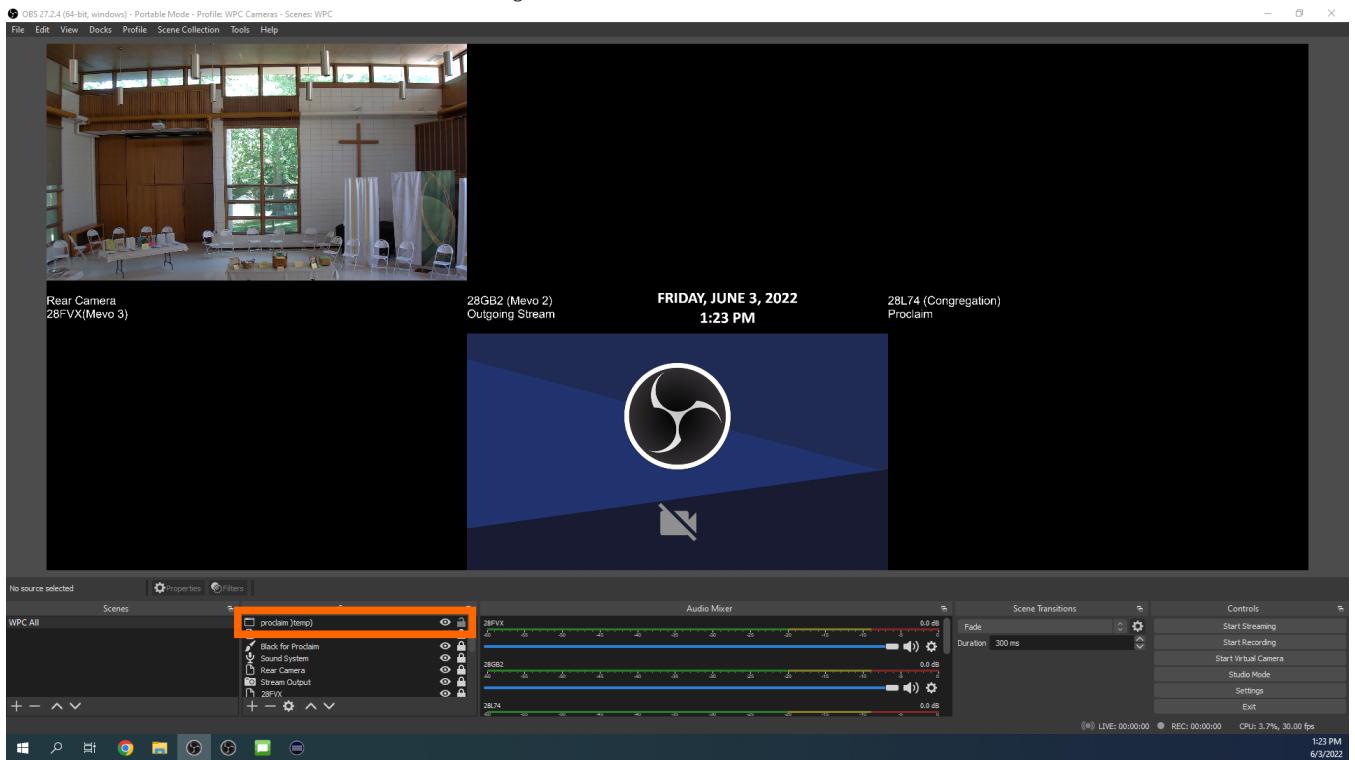
- Navigate to the "Proclaim Muted" scene.



- Follow step 2 again for the "Proclaim (temp) 3" item.

6. "WPC All" Fix

- In the OBS All Cameras Instance, do the following for the "WPC All" scene.



- Follow step 2 again for the "proclaim)temp)" item.

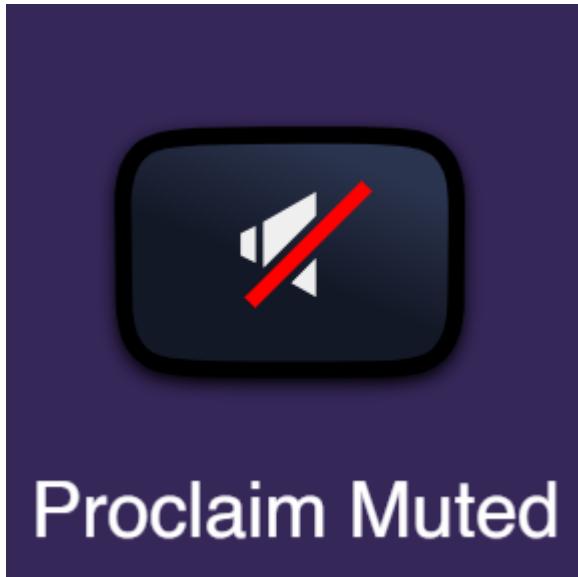
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2.2.5 Starting Recording and Livestreams

Follow the instructions below to start the recordings and livestreams.

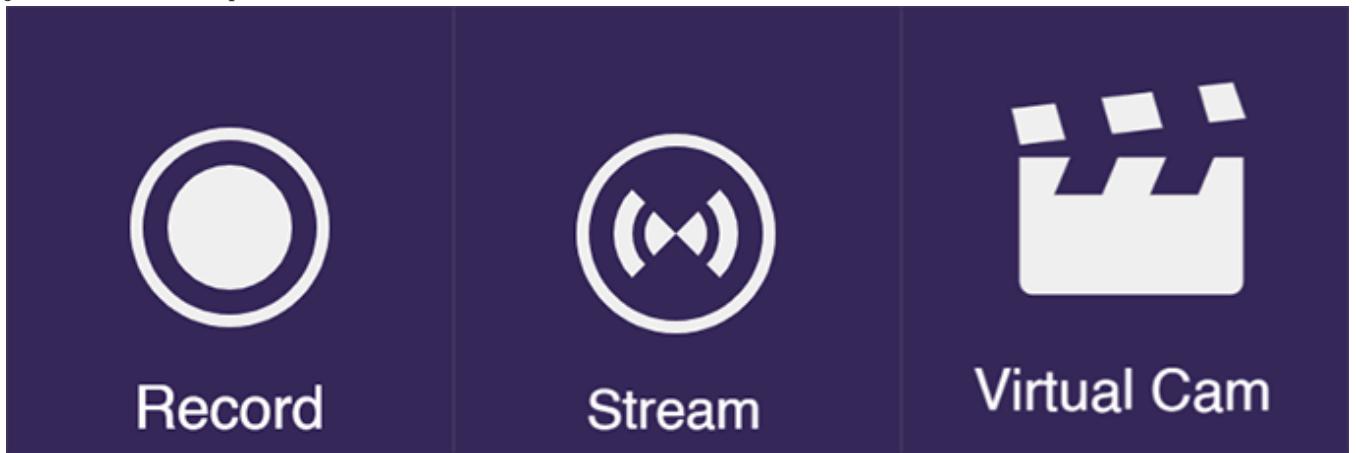
1. Proclaim Muted

- Make sure that OBS is on the "Proclaim Muted" scene.



2. Just Before 9:50 AM

- Just before 9:50 AM, press the Record, Stream, and Virtual Camera Icons



The livestreams should now be output to YouTube and Facebook Live. Open the Google Chrome window you closed earlier and navigate to the livestream to verify.

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2.2.6 During the Service

Instructions for during the service. Run the livestream image according to below, or as you desire.

When switching the rear camera, try to make sure that it is not showing on the outgoing stream. It moves in a not so fluid motion, so it's better to have it on "Full Proclaim" or one of the Mevo scenes.

Welcome and Announcements

- Use the "Full Front" camera preset and "Rear Camera" scene for the welcome and announcements.
- The pulpit microphone is usually the only one that needs to be unmuted during this. If people use the handheld for an announcement, unmute it also.

Hymns

- For hymns use the "Full Proclaim" scene to show the hymn lyrics full screen for the livestream.
- Leave the pulpit microphone unmuted, as well as unmute the piano and organ microphones.

OLO Singers / Prelude, Postlude, and Musical Response

- Use the "Mevo" camera scene pointed at the music area for these, no Proclaim, to see the singers.
- Leave the pulpit microphone unmuted, as well as unmute the piano and organ microphones.

Liturgist Readings and Prayers

- Use the "Full Front" camera preset and "Rear Camera Proclaim" scene to show the liturgist and the text that goes with it.
- The pulpit microphone is the only one that needs to be unmuted during this.

Prayer of Illumination, Scripture, and Sermon

- Use the "Pulpit" camera preset and "Rear Camera" scene for the Prayer of Illumination and the Sermon.
- Bring Proclaim onscreen during the scripture reading and for any images during the sermon by using the "Rear Camera Proclaim" preset.
- The pulpit microphone is the only one that needs to be unmuted during this.

Communion

- Use the "Table" camera preset and "Rear Camera Proclaim" scene for the written prayers.
- Otherwise use the "Rear Camera" preset if there is a point without a written prayer.
- The lapel microphone is the only one that needs to be unmuted during this.

Sharing of Joys and Concerns

- Use the "Full Front" camera preset and "Rear Camera" scene to show the front of the room and any people that come up to share.
- When the Prayer of the People and The Lord's Prayer start, bring Proclaim onscreen by using the "Rear Camera Proclaim" preset.
- The pulpit microphone and handheld microphone both need to be unmuted during this.

Benediction

- Use the "Full Front" camera preset and "Rear Camera" scene for the benediction.
 - The pulpit microphone is the only one that needs to be unmuted during this.
-

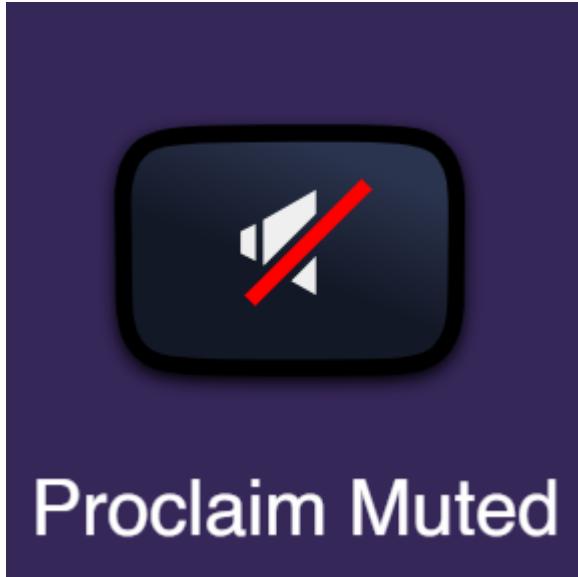
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2.2.7 Stopping Recording and Livestreams

Follow the instructions below to finish the service recording and livestreams.

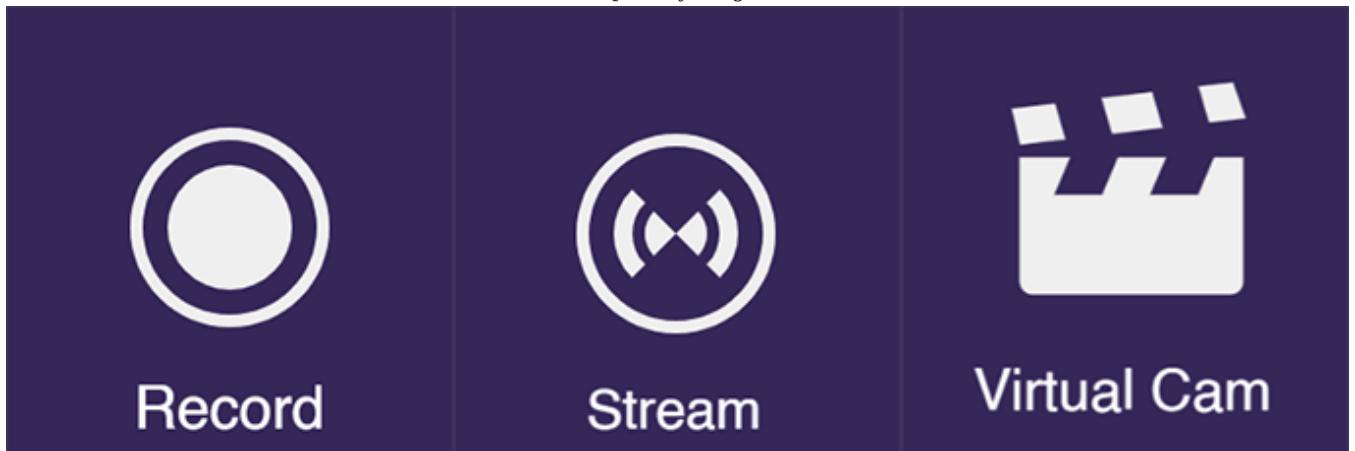
1. Proclaim Muted, Running Slideshow

- Make sure that OBS is on the "Proclaim Muted" scene and let the post slideshow run once or twice through.



2. Stopping Livestream, Recording, Virtual Camera

- Press the Record, Stream, and Virtual Camera Icons to stop everything.



3. Stop YouTube

- Open the Google Chrome window from the beginning of the service and go to the YouTube tab.
- Press the big red "End Stream" button in the top right of the YouTube livestream manager.

The streams and recordings are now stopped.

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2.2.8 Shutting Down and Packing Up Computer / Cameras / Sound System / Projector

Follow the instructions below to get the computer, cameras, sound system, and projector ready to use for the service.

1. Close Computer Programs

- Close all the computer programs.

2. Power off the Computer

- Power off the computer by going Windows Logo -> Power -> Shut Down

3. Switch Off Power Strip

- The computer will click once after turning if off. After this, it is safe to turn off the power strip
- Turn off the power strip located behind the computer.

4. Cover Computer and Monitors

- Replace the cover on the computer desk.

5. Power Off Projector

- Retrieve the remote from the second to bottom drawer on the sound system rack.



- Get somewhere near the projector and press the remote's "Off" button twice to power on the projector



- Return the remote to the drawer.

6. Close Projector Screen

- On the wall opposite the computer station, underneath the projector, switch the projector screen switch to the up position to close the projector screen.

7. Power Off PTZ Camera

- Retrieve the remote for the rear PTZ camera.

- Get somewhere near the camera and press the power button



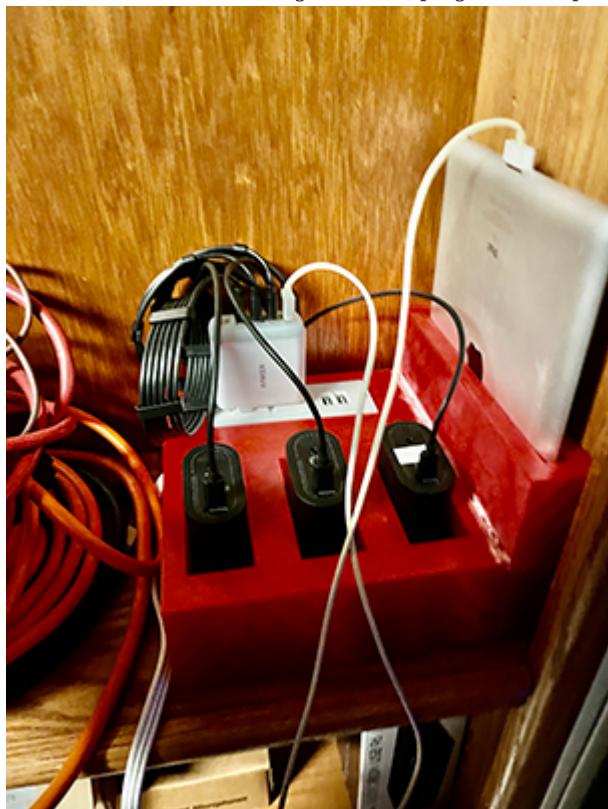
- The left light on the camera will turn on.



- Return the remote to the drawer.

8. Return and Turn Off iPad

- Return the iPad to the storage location, plug it in, and power it off.



9. Power Off and Return Mevo Cameras

- Power off the Mevo Cameras by holding the power button until it beeps. It will beep once to acknowledge you want to turn it off, wait a second, and then again as it turns off. Release the power button after the first beep.



- Return the cameras to their storage location and plug in.
- Return the stands to their storage location.

10. Turn Off Sound System Amplifier

- Turn off the amplifier on the sound system rack to turn off sound output from the microphones.

- The amplifier is the third most bottom thing on the sound system rack.



- Press the power button in the bottom right of it. It will click back out and the light on it will turn off.

11. Return Microphones

- Return the pulpit microphone to the drawer



- Retrieve the microphones for the piano and organ and return them to their bags.



- Return the stands to where you got them and the microphones in their bags to the drawer

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2.2.9 Switching Back To Church Internet

After the service, it is necessary to switch the ethernet port back to the Church Access Point. Follow the instructions below to switch the internet.

1. UNPLUG COMPUTER ETHERNET

- Go to the back of room where access points are (next to the left kitchen door, underneath the PTZ camera) and unplug the top white cable labelled "Computer Ethernet" from the ethernet ports on the wall
- This unplugs the computer



2. RETRIEVE MASTER KEY

- Go to the copy room and get master key from they key box

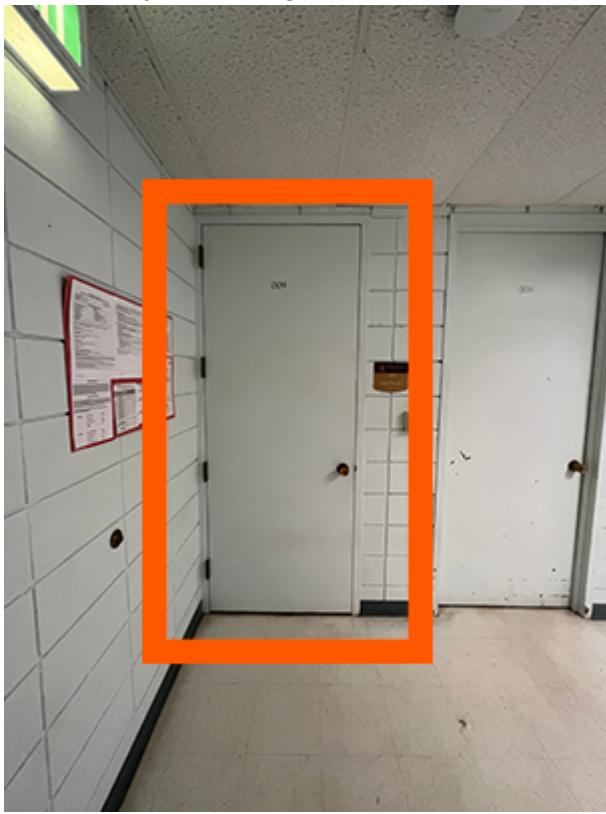


- The key box passcode is the Wooster area code
- The key is labelled "All Interior Doors"



3. VISIT ELECTRICAL CLOSET

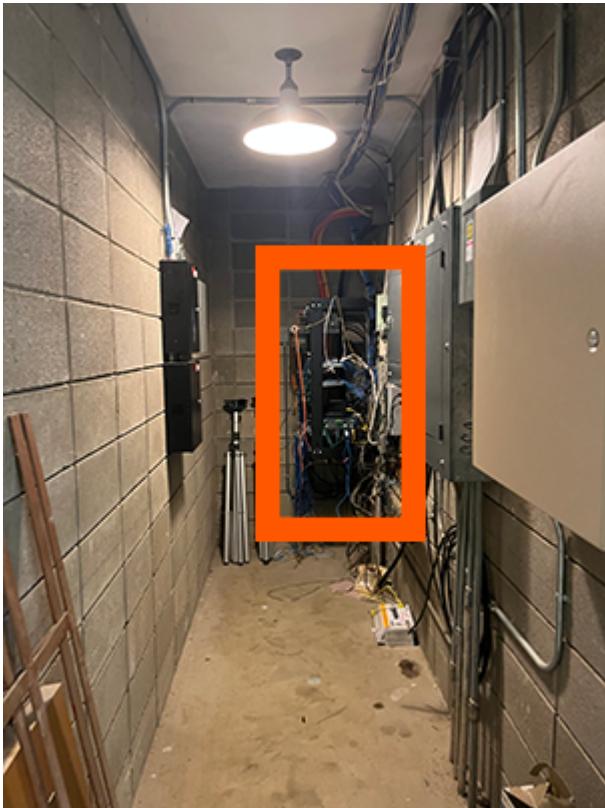
- Go to the electrical room in The Meeting Place
- This is directly to the left right inside the main door to The Meeting Place



4. UNPLUG MACKEY HALL CABLE

- Unplug the green cable labelled "Mackey Hall" from the COW network switch

- The network rack is straight inside the at the back of the closet



- The cable you need will be the only green one plugged into the COW switch



5. PLUG-IN MACKEY HALL CABLE

- Plug the same cable into the Church POE switch

- It is normally the far left cable in the set of three green cables plugged into the Church's POE network switch



6. RETURN KEY

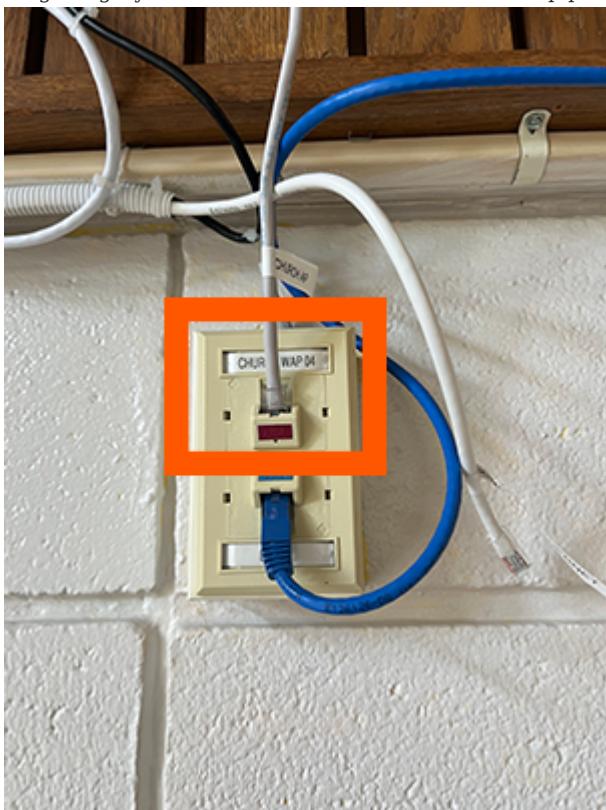
- Return the master key to the box in the copy room

7. RETURN TO MACKY HALL

- Return to Mackey Hall to complete the final step

8. PLUG-IN COMPUTER ETHERNET CABLE

- Plug the gray cable labelled "Church AP" into the top port that was left empty in step 1



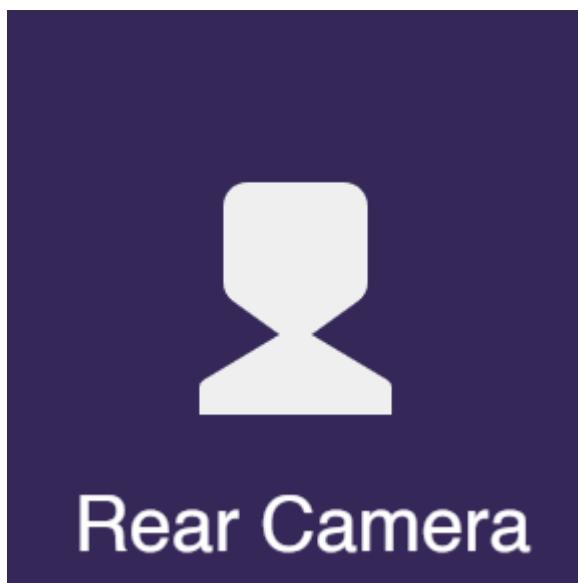
You have now switched the ethernet back the Church network.

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2.3 Other Instructions

2.3.1 Stream Deck Icon Meanings

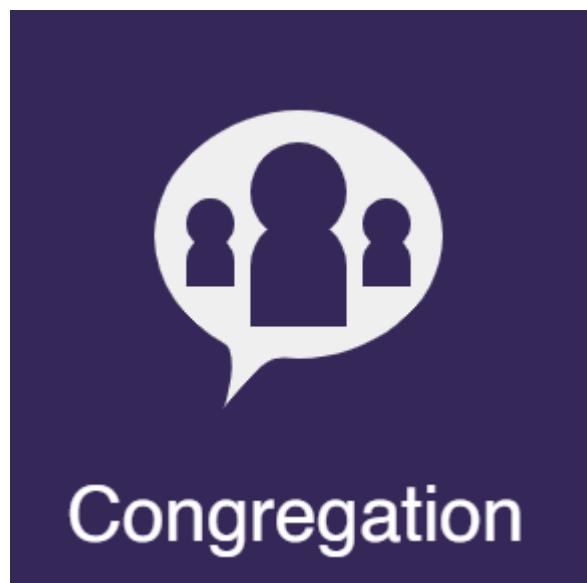
This page explains the meanings of each icon on the stream deck.

Main Menu

Rear Camera

Rear Camera

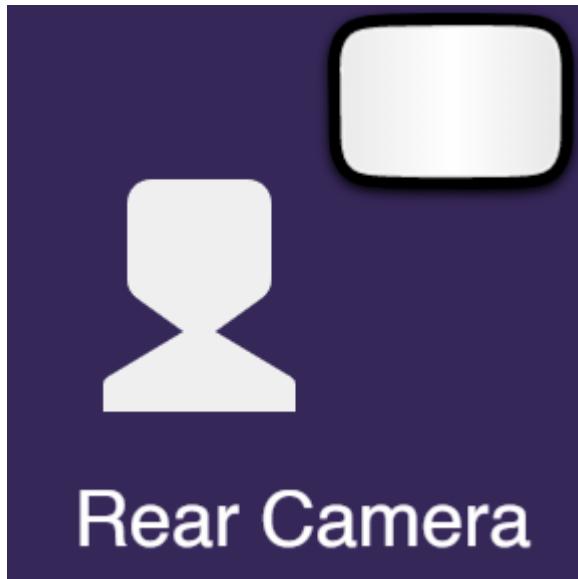
View from rear PTZ camera



Congregation

Congregation Camera

View from congregation camera used during sharing of joys and concerns



Rear Camera

Rear Camera w/ Proclaim

View from rear PTZ camera with Proclaim in top right corner



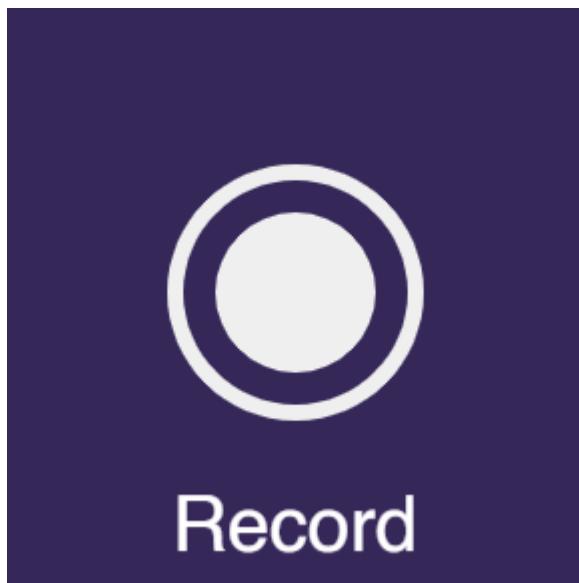
Congregation

Congregation Camera w/ Proclaim

View from congregation camera used during sharing of joys and concerns with Proclaim in top right corner

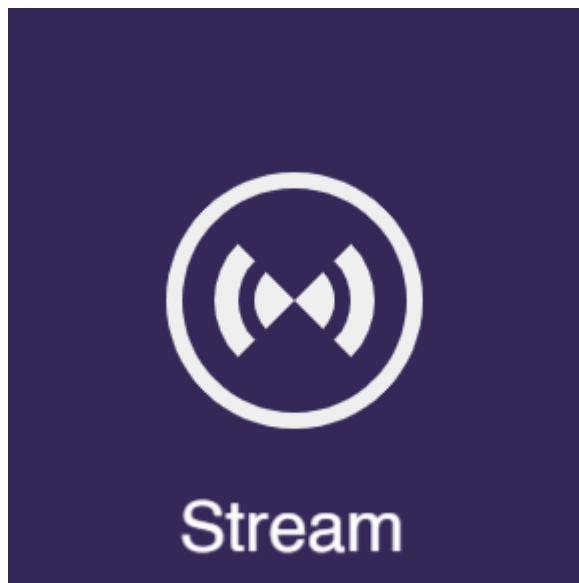
Mevo Camera

View from se corner



Record

Start recording from OBS Studio instances



Stream

Start streaming from OBS Studio to Youtube and Facebook



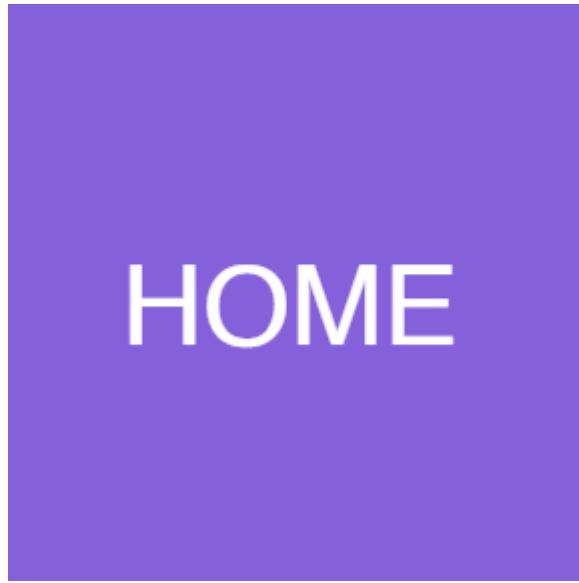
Virtual Camera

Start virtual camera

Camera Presets Menu

Back

Back to main menu (above)



Home

Home position of camera, completely zoomed out



Full Front

View of the entire front camera

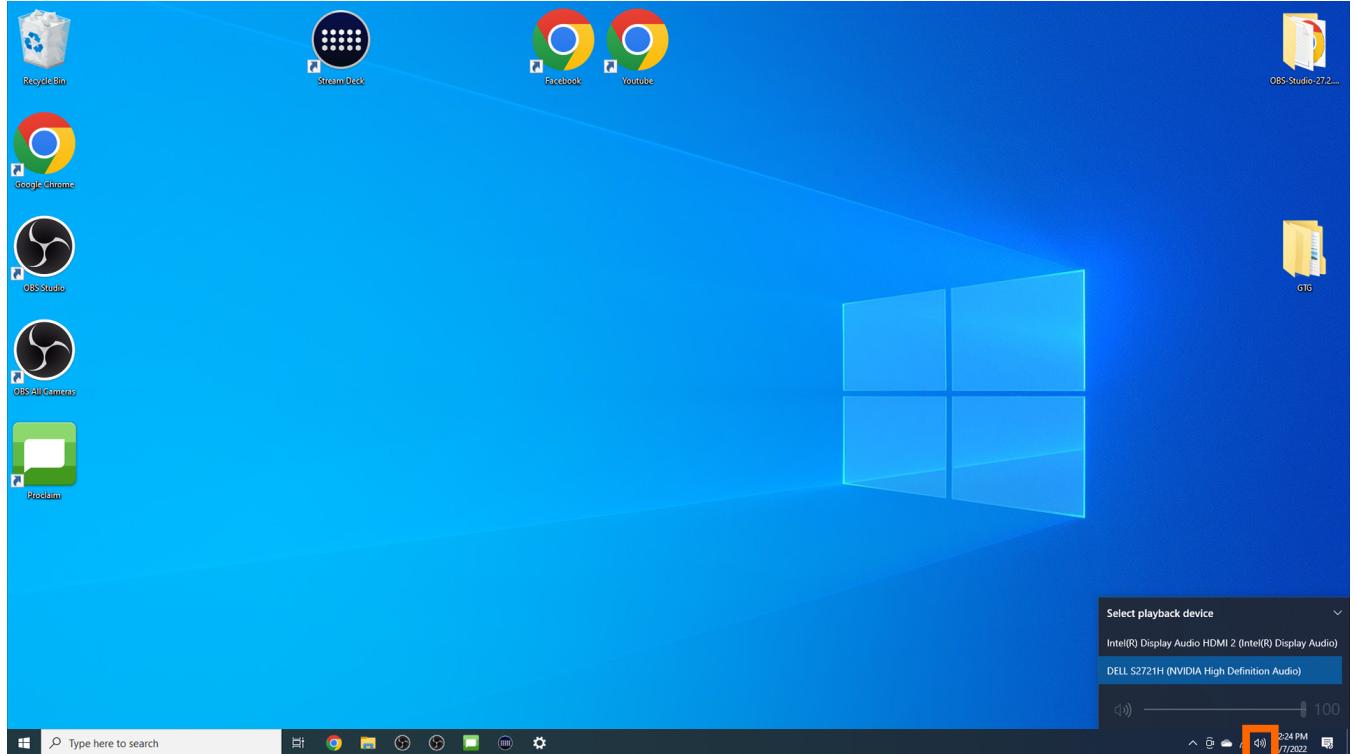
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2.3.2 Changing the Audio Output Device

It can be necessary to change the audio output between the center monitor and the Mackey Hall sound system. Follow the steps below to change the audio output device.

1. Select Speaker Icon

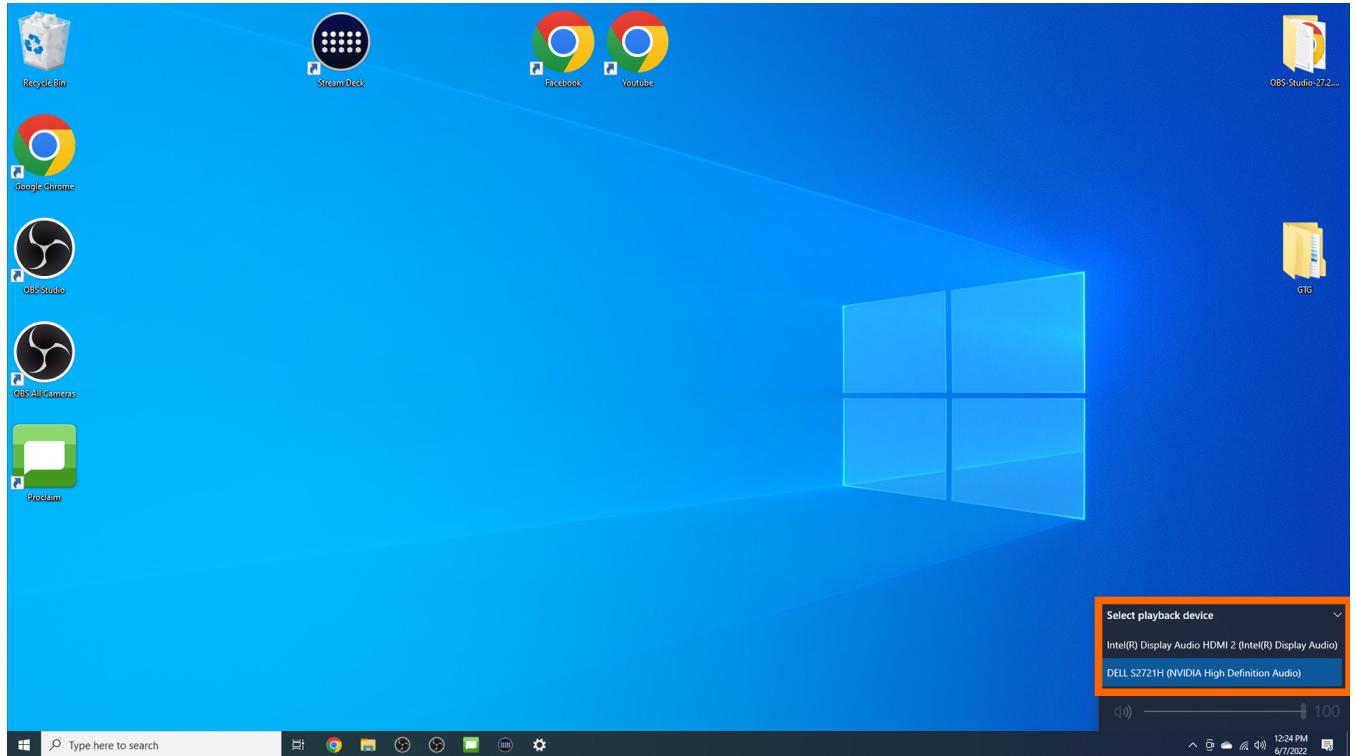
- Click the speaker icon in the bottom right of the center screen to open the volume settings.



2. Select Playback Device Dropdown

- Just above the volume slider, select the menu to bring up all the audio output devices.
- This will show one of the following devices:
- Intel(R) Display Audio HDMI 2 (Intel(R) Display Audio)
- DELL S2721H (NVIDIA High Definition Audio)

- After opening the dropdown, it will show all audio output devices.



3. Select Output Location

- According to the list below, select where you want the audio to be output to:

Sound System

Intel(R) Display Audio HDMI 2 (Intel(R) Display Audio)

Desktop Monitor

DELL S2721H (NVIDIA High Definition Audio)

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<https://github.com/jackveney/wpc-tech-docs>