

Open Broadcaster Software

Rocky Mountain Ham University

NerdFest

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Presenter Info

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OBS for Ham

How to stream video with the least cost and minimal brain damage.

- Why do we need to use this? We can just hook a camera up to zoom!
- It has to look good!
- It has to work.
- It has to be easy to operate.
- It can't cost a fortune.



Zooming or Youtube Live?

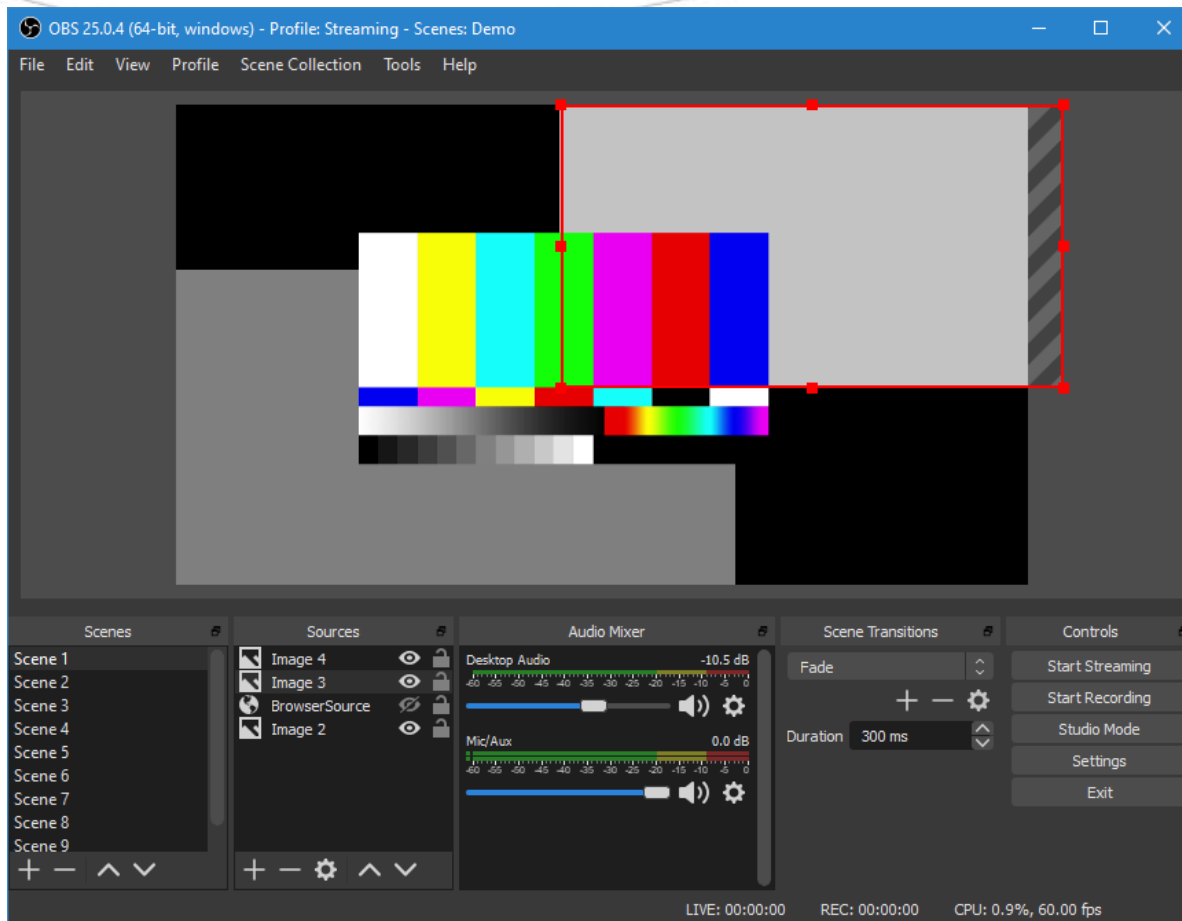
- ◆ Standard single camera is easy with just Zoom.
- ◆ If you need to do more, you need a good tool.
 - ◆ Inserting cameras
 - ◆ Inserting audio
 - ◆ Inserting videos
 - ◆ Inserting other people remotely
- ◆ Commercial tools can be expensive, OBS is free!

Overview of Requirements

◆ Our Needs:

- ◆ To livestream classes to Zoom or YouTube Live
- ◆ Handle multiple cameras and views easily and quickly
 - ◆ Zoom doesn't do multiple cameras in the low-end packages
- ◆ Record high quality video for editing later and posting
 - ◆ We use OpenShot video editor to edit and post-process video
- ◆ Easily operable by team members

Open Broadcaster Software



Elgato Stream Deck More Buttons is BETTER!

Each button push can be programmed to do a function or scene. Big time saver.



Multiple monitors to juggle...

More monitors make it easier to see all of the production elements. Doing live is a challenge as you need to see all production elements.

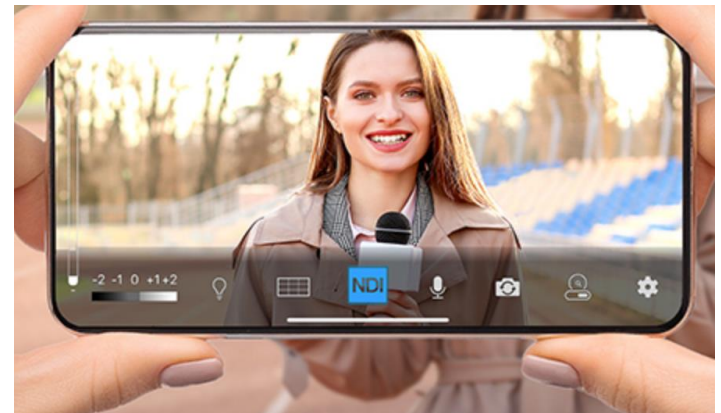


What is needed to run a show?

- ◆ The bare minimum is a copy of OBS on your chosen computer,
 - ◆ Set up some scenes
 - ◆ Video sources on each scene
 - ◆ A good internet connection with lots of reliable outbound bandwidth
 - ◆ One stream is about 5mbps for HD.
 - ◆ Double it for two streams...
 - ◆ A Zoom account
 - ◆ A Youtube Creator account with streaming approved.
 - ◆ This is NOT an instant process so make sure you do dry runs ahead of time to ensure that it all works the way you expect.
 - ◆ You can simultaneously record locally for higher quality video.

What kind of Camera?

- ◆ Most any HD camera will work well. Even a Logitech 1080p webcam is a great tool for one person.
- ◆ We use iPhone cameras with a \$20.00 tool called “NDI Camera” for most of our video. This tool outputs up to 4K video!
- ◆ The higher the resolution, the better the stream, but high resolution requires more computer resources and outbound bandwidth.
- ◆ Most all video streams on YouTube are 1920x1080 HD



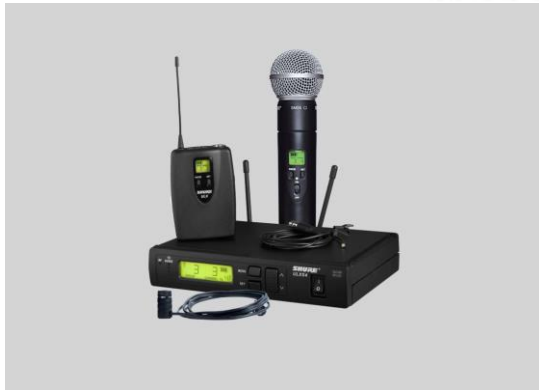
Bringing in Remote Callers

- ◆ Skype allows for individual remote callers video to output via NDI which OBS can use with some simple FREE plugins.
- ◆ Zoom is working on this but it will need a high-end account to facilitate this. Skype is free, but watermarked in the video. You can crop it out with OBS.
- ◆ All remote callers can be added via a scene as if it were a regular NDI Video source, moved around as appropriate.

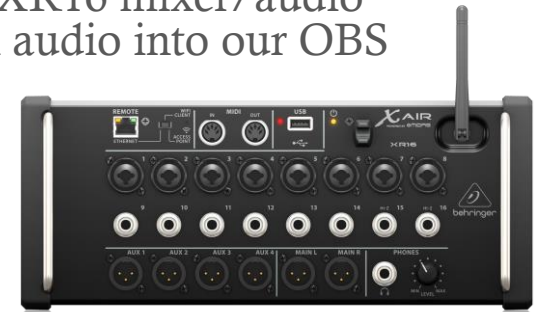
Bringing it all Together

- ◆ How we brought it all together.
 - ◆ Any Zoom account will work, but only the commercial and Webinar licenses have full unlimited functionality and aren't limited on time.
 - ◆ A little bit of time building scenes for each camera view and ensuring that the video overlays are working properly and clean and the audio sounds good.
 - ◆ Run plenty of dry-runs and a critical eye.
 - ◆ Use some good audio sources, high quality microphones, etc.
 - ◆ Bring in all of your audio sources, isolate them properly if you get hum.
 - ◆ ALWAYS use the audio in and out from your main zoom computer. Echo and feedback will occur if you have any other audio source.

Bringing it all Together



- Audio is critical. You should use high-end commercial audio solutions. If it sounds bad, you won't want to watch the video.
- We use Shure wireless lavalier and handheld microphones and a Behringer XR16 mixer/audio capture system to ensure clean audio into our OBS computer.



- We use inexpensive HDMI to USB 3 capture cards to grab video from laptops and cameras and insert into OBS.
- Shown unit is \$24 on Amazon!

More info?

💧 Questions?

💧 Contact us

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