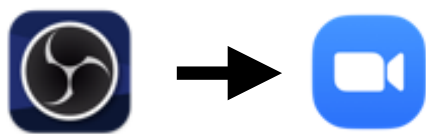


USING OBS TO LIVESTREAM TO ZOOM



OBS is a free app that allows you to livestream and record livestreams among many other things! At ENC we use this app to record video on Sundays, livestream to YouTube and to livestream to Zoom. Here's how we do it.

Things in red are generally for advanced users only.

1. Download OBS if you haven't already - <https://obsproject.com/download>
2. You must download a 'virtual audio device'. We recommend you download and install the free 'VB Cable' - <https://vb-audio.com/Cable/>
3. You may also want to download and install a free add-on to OBS called 'Audio Monitor' which allows you to 'monitor' audio (so you can hear sound as it plays) - <https://obsproject.com/forum/resources/audio-monitor.1186/>
4. Obviously you will need Zoom installed as well. Make sure that all your apps are up to date so they work properly and are secure.

VB CABLE

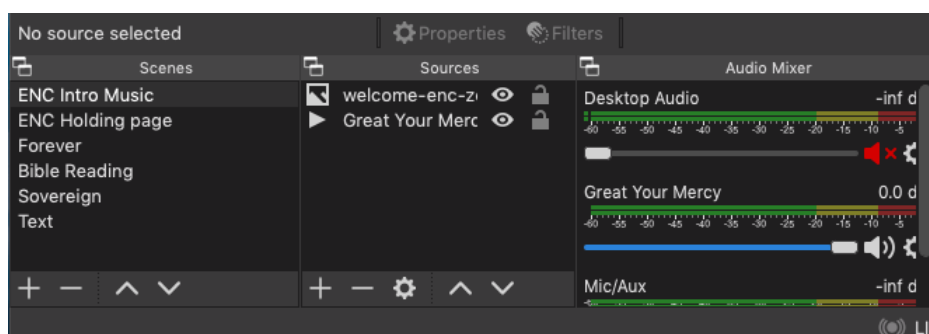
5. First we need to install VB cable, so download and install for your computer. This allows the sound to communicate between OBS and Zoom and is essential. When you have installed VB Cable, check your computer sound settings to see if you can see VB Cable. If not restart your computer.

OBS

6. We need to set up Zoom to show the videos and images. OBS works a bit like a theatre production. There are various scenes which you can set up and then allow others to view each scene.

Scenes →

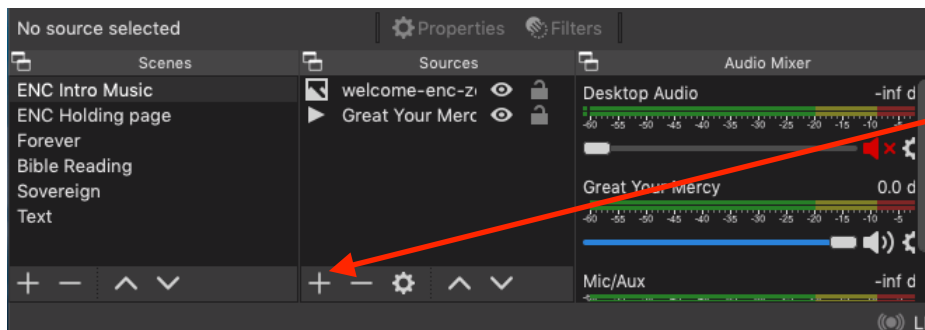
Add new scene →



7. *(It's a good idea to have all of the videos and images that you need in a single folder with an appropriate name (e.g. ENC 5 Feb) somewhere on your computer. This keeps everything together so you can easily find it).*
8. To set up a scene in OBS, click on the '+' icon in the bottom left of the window (shown in the image above). This allows you to 'add' a scene. Name it so you know what it is. In the example below you can see examples of how things have been named.

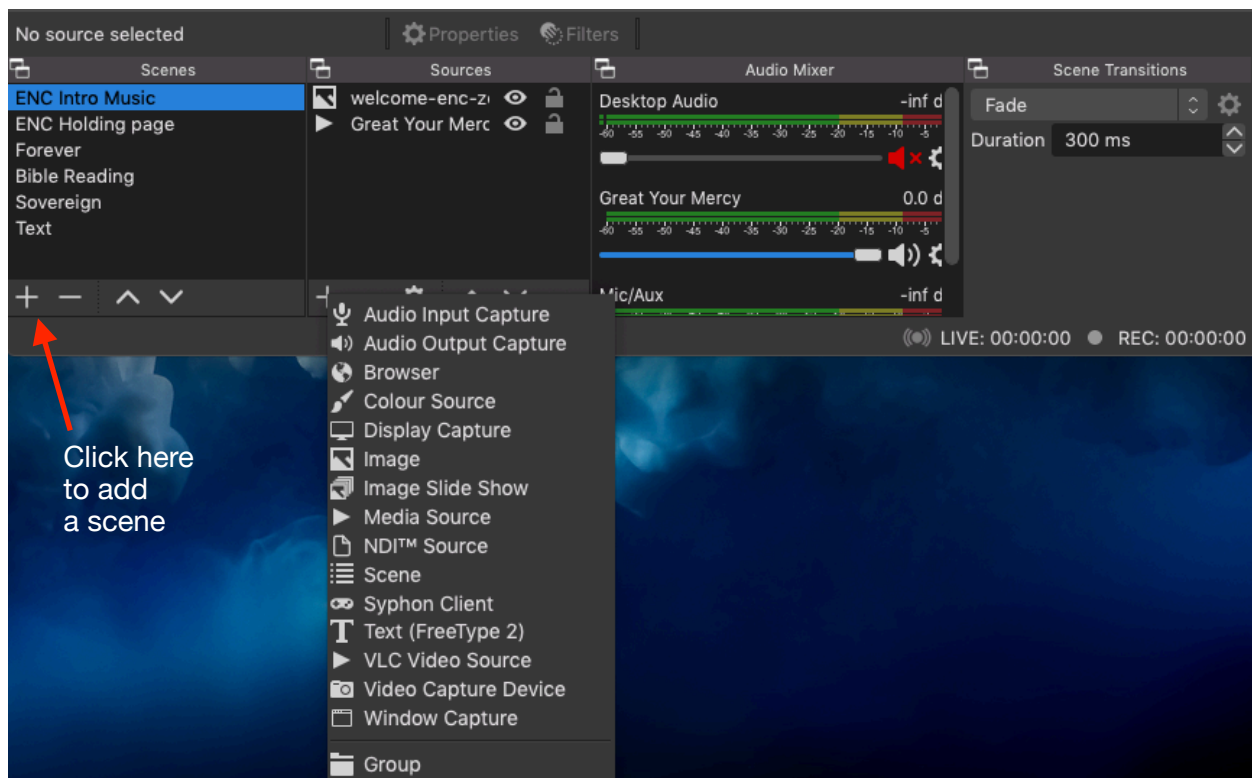
Once done, if you want to shortcut points 9-13, jump to Point 14

9. With the scene you have just created selected, click on the '+' icon that is in the lower left of 'Sources' box choosing one of the selections that pop up.



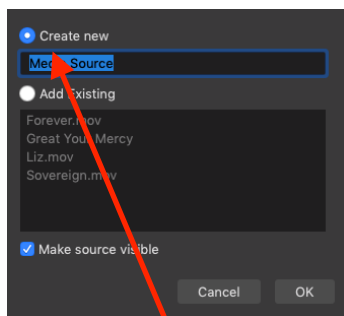
Click here to add a Source

10. The options that you are most likely to use to livestream to Zoom are 'Image' (for pictures eg the ENC logo) and 'Media Source' (for videos).

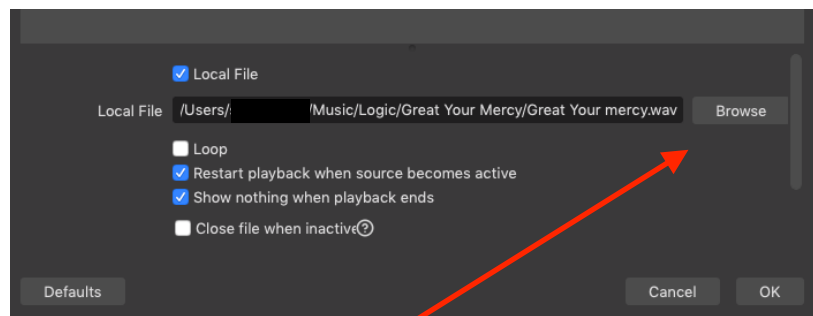


Click here to add a scene

11. A window will then pop up where you can insert a name, creating a new source or using one you've already added ('add existing'). Select 'create new' and make sure that 'Make source visible' is ticked (it is by default).



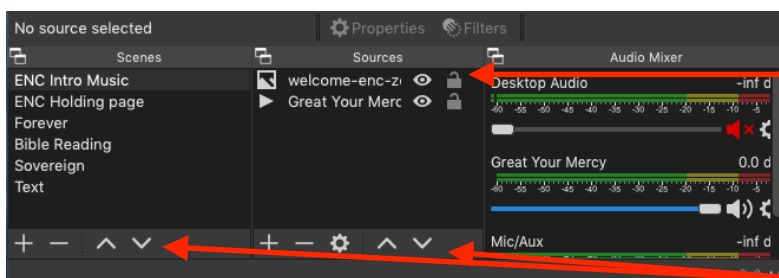
'Create new'



Click here to find the file on your computer

12. Another window now pops up asking you to find the file that you want to show - you do this by selecting 'browse' and finding the file on your computer. In the example above, we have navigated to a file called 'Great your mercy.wav' - but obviously your file will be different.
13. Make sure that 'loop' is not ticked - unless you want the file to constantly repeat showing. Make sure 'restart playback...' is ticked and I generally tick on 'Show nothing when playback ends' but that's optional. It just means when a video finishes, the screen goes blank rather than holding on the last frame of a video you have just played back.
14. *A very simple way to do the 'Sources' is simply to drag a file from the folder on your computer into the 'Sources' box. OBS will pick up what the file is and pick the appropriate category.*
15. If you need to ever edit a scene or a source or access further menus, right-click in the 'scenes' / 'sources' area (whichever you want to edit) or double click one of the names there and a window will pop-up to make changes.

In the sources box, you can add more than one layer - for example having some text on top of a video. Or you can do more complex things!

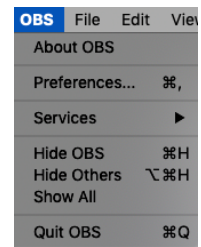


In this example, the scene called 'ENC Intro Music' has two sources - 'welcome-enc' and 'Great Your Mercy'

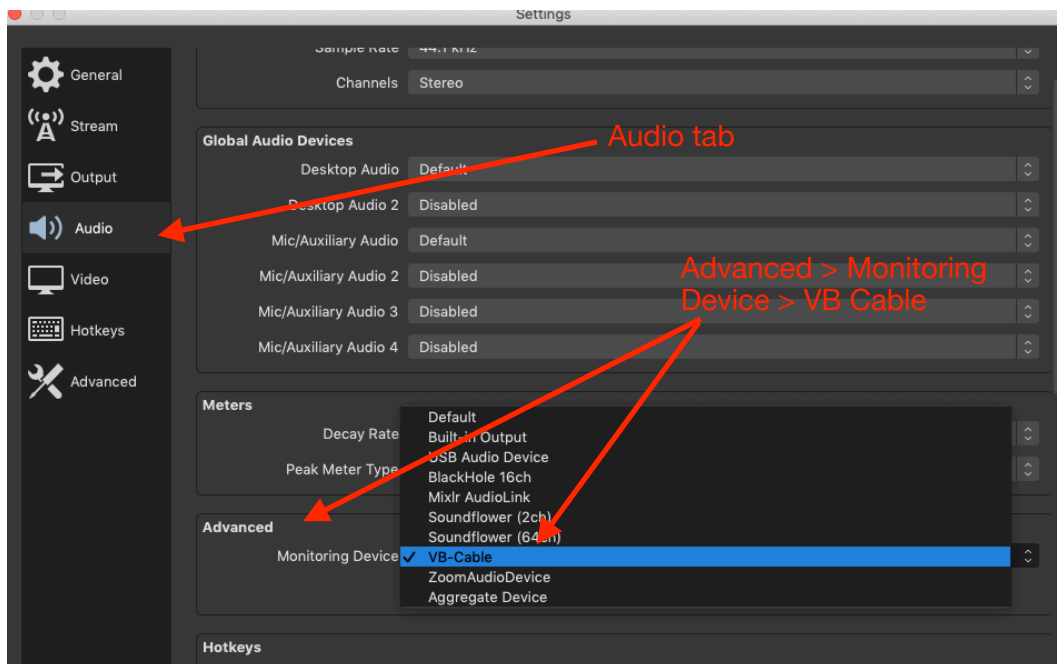
You can change the order of anything using v and ^

16. Imagine that you have now finished adding every scene you want to add. You now want to make sure that where there is a video, you send the audio (sound) from OBS to Zoom. To do this we use the Virtual Audio Cable (eg. VB Cable we installed earlier).

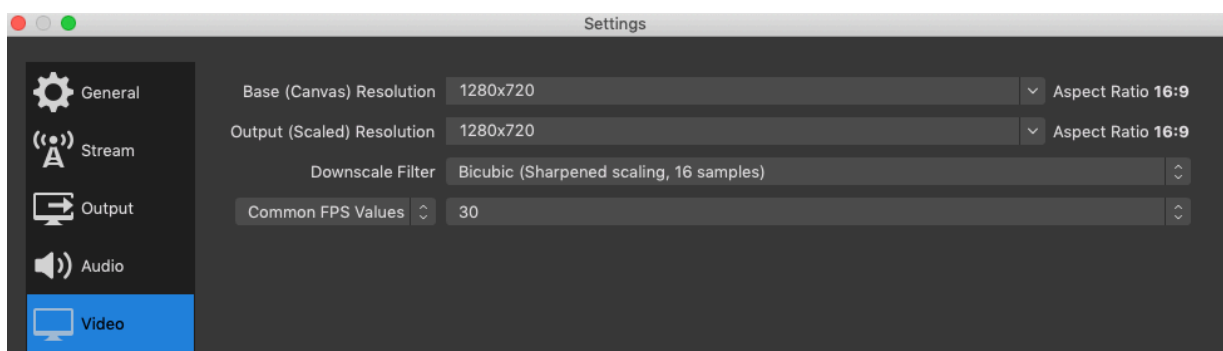
17. Go to the Preferences Menu within OBS. On a Mac, the shortcut to preferences is to click the 'Cmd' key and the comma key ',' at the same time - or go to the OBS at the top left of your computer window and select 'Preferences'



18. In Preferences, select 'Audio' and then scroll down until you find 'Advanced' and 'Monitoring Device'. In here, you want to select your virtual audio cable ('VB Cable'). This means that sound played back from OBS goes along an invisible cable in your computer rather than say playing back from your computer. Click 'OK' and close the Preferences window.



19. We also need to tell OBS to show the video at a set size. Recommended is 1280x720 at 30fps (frames per second) - this will be more than enough for people using devices and will also help your computer play back videos



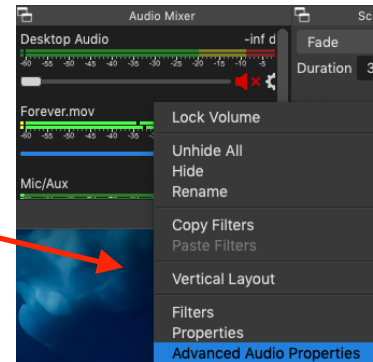
without glitching and keep things standardised across all of those doing OBS Tech. To do this in Preferences, go to the 'Video' tab on the left, select 1280x720 and 30fps as shown in the picture above, then click 'OK'.

20. We now need to tell any audio in our OBS Scenes that they need to be monitored! You will need to do this for each 'scene' or 'sources' that has audio. If your audio doesn't play back it is often here where you need to go to resolve the problem!

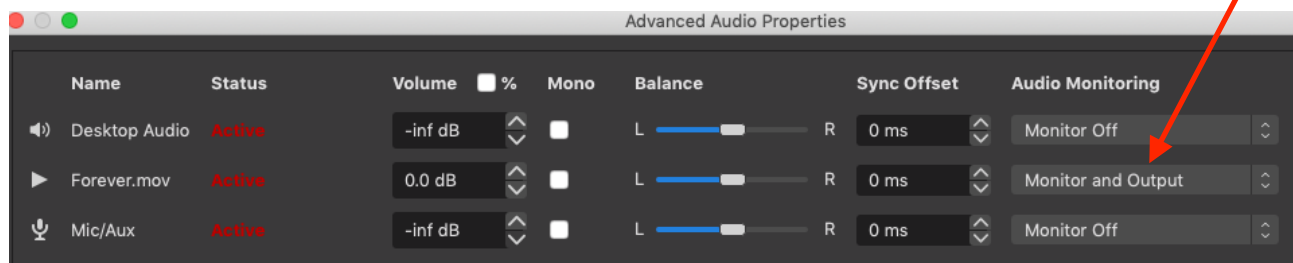
21. In the main window OBS, find the 'Audio Mixer' window and right-click in that area. Select 'Advanced Audio Properties

of

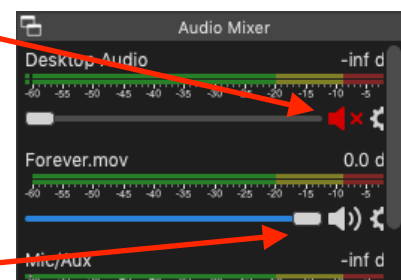
Advanced Audio Properties



22. The 'Advanced Audio Properties' menu pops up. On here, find the name of the video file or audio file that you will play back and make sure that the 'Audio Monitoring' for that file (in the example below 'Forever.mov' is set to 'Monitor and Output'. Everything else like 'Mic/Aux' and 'Desktop Audio' should be set to 'Monitor Off' so people don't hear your mic! Click OK

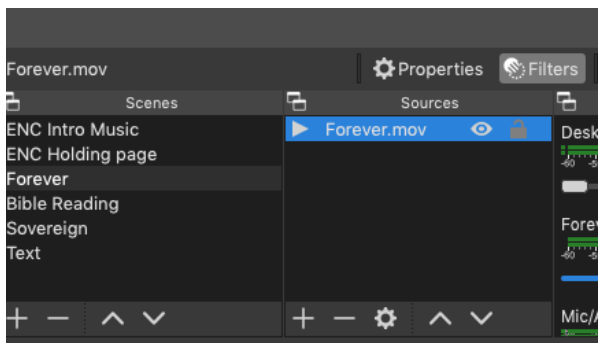


23. You now need to make sure that your mic and desktop audio aren't on at all. To do this, go back to the 'Audio Mixer' window and drag down the volumes on 'Desktop Audio' and 'Mic/Aux' and/or click the icons so they go red, making sure the 'video' one is white a set to output as in the example (right).

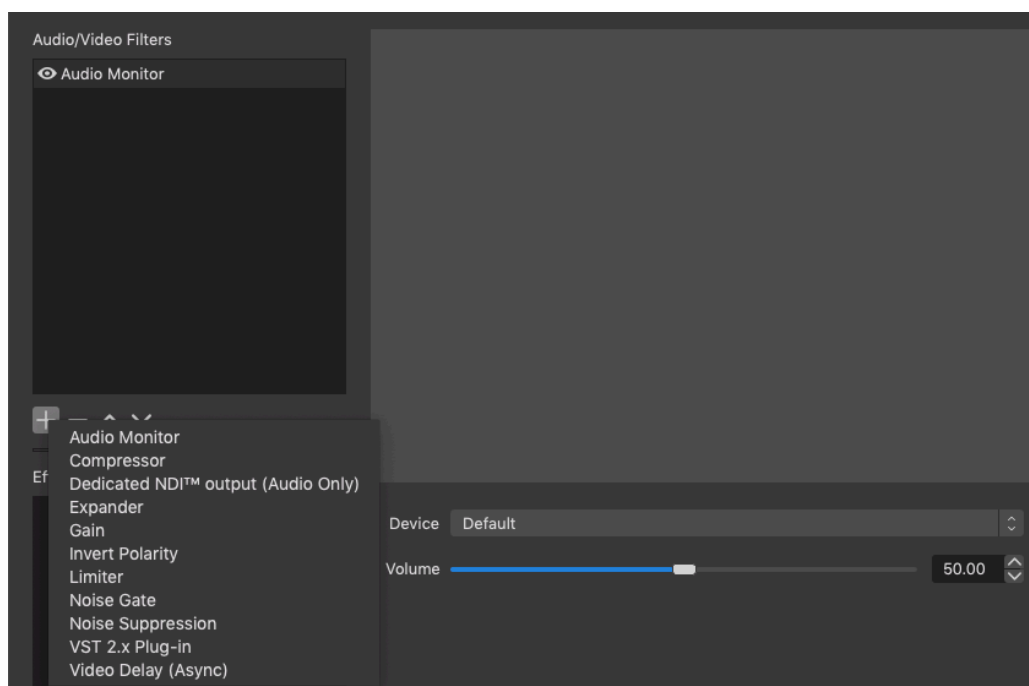


(Note that the 'Audio Mixer' section acts like sound mixer and you can increase and decrease the volumes of individual videos / audio by dragging the slider (the blue line above). Ideally these should never go into the 'red' area, which means they may distort and not sound good!)

23. One **optional** final step that has to be done for each video or audio track is your ability to hear the sound you are playing back on your computer directly. This can only be done if you have installed 'OBS Audio Monitor' (point 3). This needs to be set up for each track individually. The way to do this is to select the individual audio or video track in the 'Sources' window by clicking on it. Then you need to click on the 'Filters' tab.

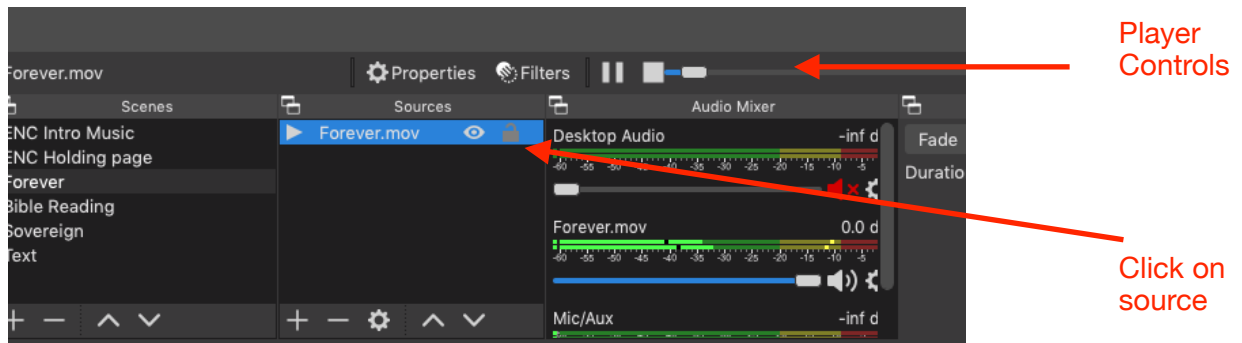


24. When this pops up you then add ('+') the audio monitor filter and select which device you want this to output to. You can also set the volume.

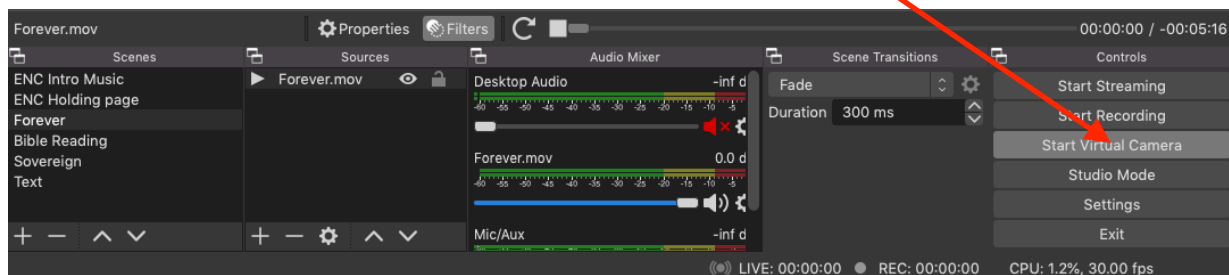


(Note the audio filter / video filter tab also allows other things like adding in audio plug-ins, delaying video or audio to synchronise playback but this is all quite advanced stuff so best avoided unless you really know your stuff !)

25. When viewing a scene in OBS you can see how long you have to go / how long the clip is by clicking on the name of the file in 'Source'. Just above you'll see the player controls (for play / pause etc).

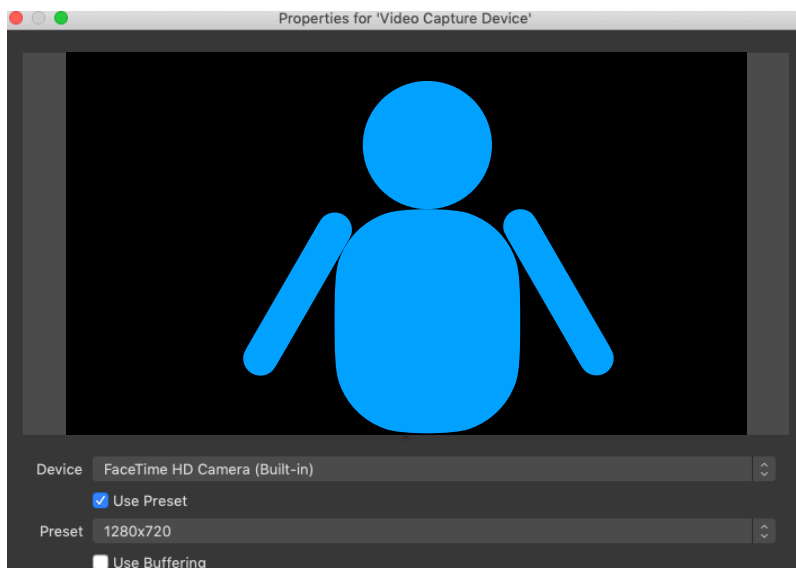


OK so now we need to not only send the audio out from OBS to Zoom, we also need to tell OBS to send video to Zoom. To do this we use a 'Virtual Camera' which we just need to click to turn on.

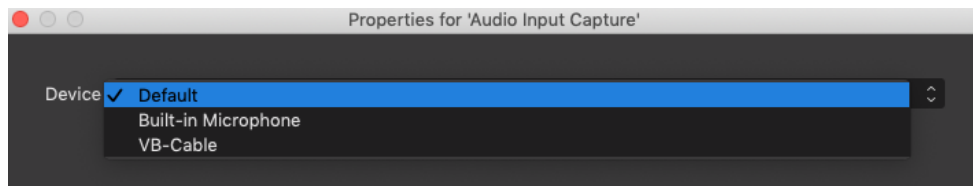


26. Your final OBS task is to create a couple of other scenes - one for you to be seen and heard, the other as a holding page...

Create a new scene as described above. In the 'Sources' window, add a source ('+') and select 'Video Capture Device' - then click 'OK' in the first pop-up window. Then select the device as your webcam (so for me that's FaceTime HD). Check the preset size is correct (we've been using 1280x720) and click OK.



27. Then in the 'Sources' window, add (using the '+') and choose 'Audio Input Capture'. Click OK in the first pop-up window. Then under 'Device' choose your computer mic - so for this example it's 'Built-in-Microphone'. Click OK.



Now you can use this 'Scene' to be seen and speak on Zoom, then select another Scene for the play back of video.

28. Another scene you may want to create is a 'Holding Page' which is a page showing the ENC logo (at a non-transparent resolution of 1280x720) or saying something like 'ENC Video'. This is basically something that you can click back to once a video has played. Call it 'Holding Page' or similar.

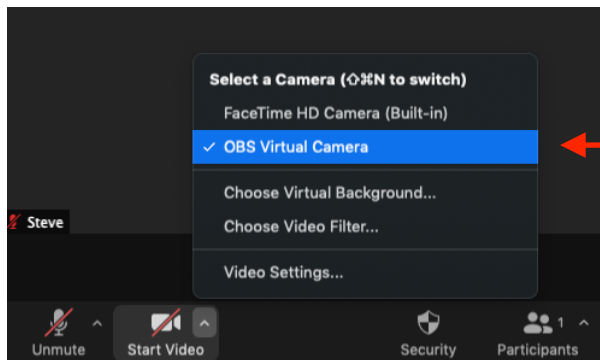
If you want to do this, create a new scene, then add a new source of 'Image' and add the image - or simply drag the image from your computer into the source window with your scene selected.



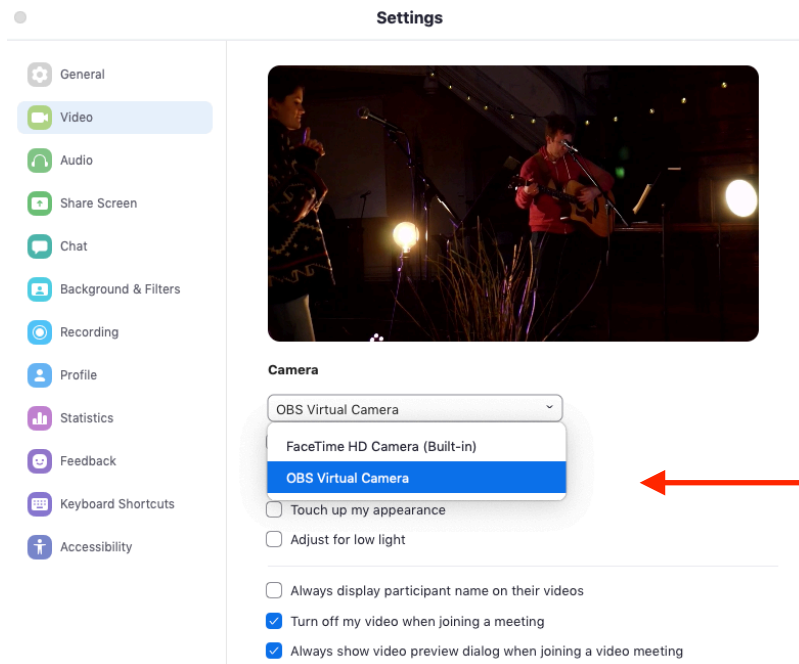
29. AND BREATHE... You can successfully set up OBS. Make sure you save!

ZOOM

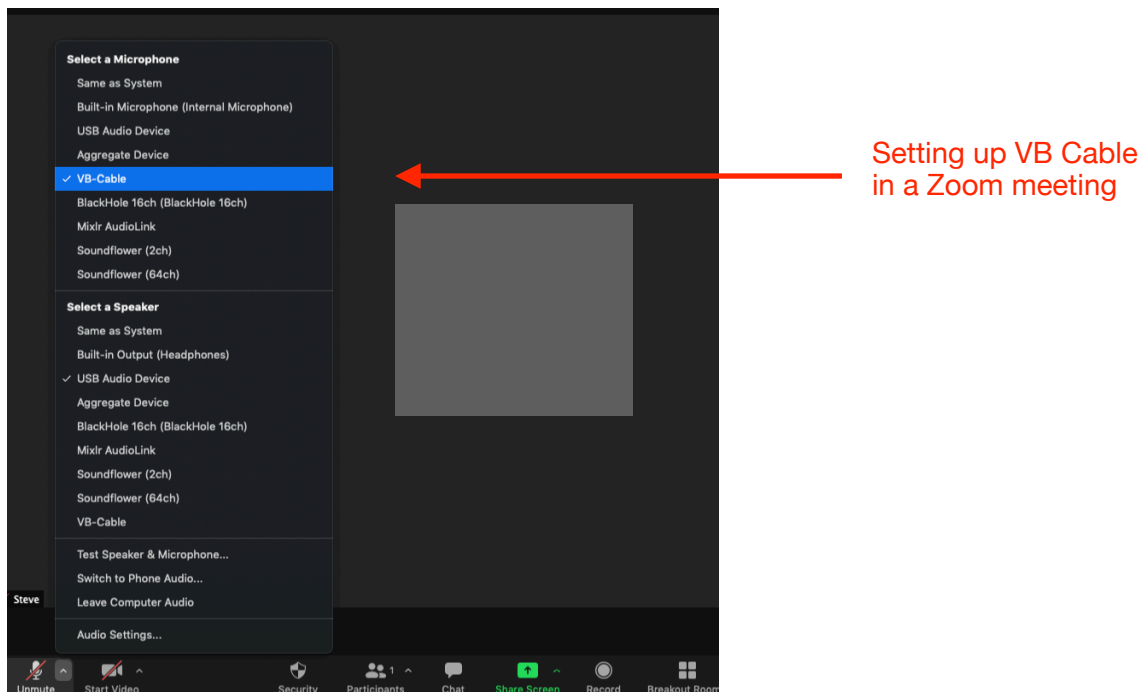
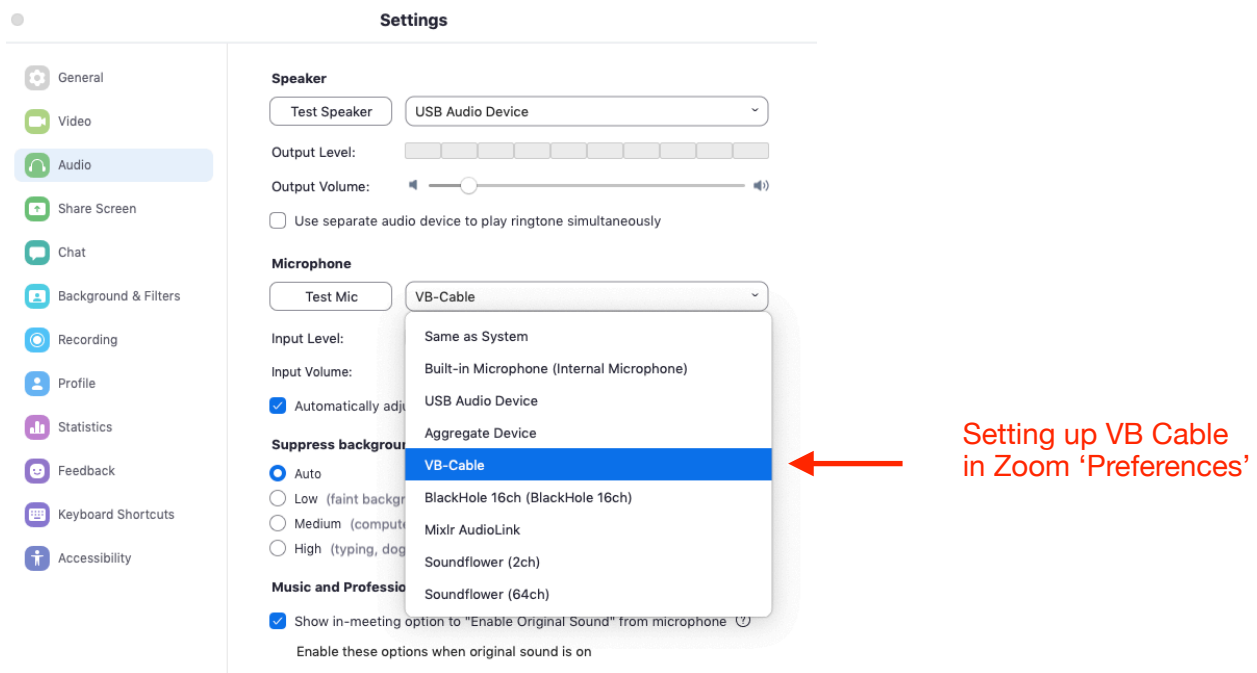
30. Finally we'll open up Zoom so that it talks to OBS. Like life, it's all about good communication! To do this we need OBS up and running with the virtual camera switched on.
31. Now we need to tell the Zoom camera that it should show the video from OBS and tell the Zoom 'Mic' to receive the sound from our virtual audio cable (VB Cable).
32. You can either do this in the Zoom Preferences (click the 'settings cog' icon and then select Video and Audio. Or you can do this in a Zoom meeting. See the images shown below for this.



Setting up OBS
Virtual Camera in
a Zoom meeting

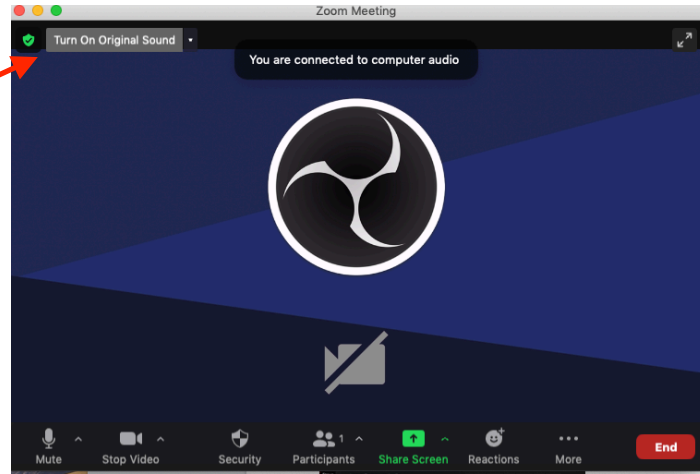


Setting up OBS
Virtual Camera in
Zoom 'Preferences'



33. Make sure you test this thoroughly by starting your own Zoom meeting - maybe inviting a friend or inviting yourself via another device and testing that you can see and hear the video from OBS. If you can't, look through the steps to troubleshoot the problem, going through one thing at a time and ticking off each possibility! Any problems contact any one of the ENC tech team or ENC office.

34. Obviously you also need to make sure that Original Sound is turned on in Zoom!



35. Your final thing is just to keep an eye on the Zoom mute as when the host mutes everyone that will include you! Just make sure you check you're unmuted before playing back a video - obvious but easily missed!

If all is working it should look like this... (Zoom below left, OBS below right)

Well done for making it through! Give yourself some chocolate, or ask the ENC office for some...

Zoom

OBS

