

CGBC A-V Guide April 2021 Supplement

Using OBS to Record / Livestream a Service

(old training video timings in brackets)

1 – Switching On (00:00)

Switch on the COMPUTER BEFORE PA Desk (this is a reversal of my earlier advice, and seems better for getting the PC screens in the correct order). Then switch on PA power, the X32 mixer will reload the last used settings. In order to ensure the correct starting point, load Scene 06 'Remote Service' (press assign button 12 to access scenes).

Next, copy the resources (video files of songs, readings, any PowerPoint etc) that will be used in this service to a new folder on the desktop so they are all easy to find.

2 – OBS Studio Overview (03:41)

Now open OBS. This will open with last week's settings as a starting point (there is no 'save' function in this software).

In 'Studio' mode the top right window ('Program') shows what is being recorded and streamed, and the top left 'Preview' is where you cue up the next scene to fade to. If OBS doesn't find both cameras, then just close and reopen OBS and that seems to fix this bug!

3 – Adding Source material (Scenes and their Sources) (08:36)

You may delete scenes which were specific to last week – songs, readings etc but be careful NOT to delete the camera scenes etc as these have the mics setup correctly.

Add new scenes as required for each new media element of this week's service. Once you've created a scene add the source. A video file is a 'media source' – give it a unique name (not the same as the scene) and navigate to the desktop folder where you saved the resources.

When you add a video you also need to do two more things:

1. Right Click the Source and select 'Transform>Stretch to Screen' (this is not always necessary now since OBS was updated, but sometimes it is – check the video plays correctly).
2. Set it playing (use fade / transition) and then right click on the settings wheel in the audio mixer for the file, select Advanced Audio Properties and select 'Monitor and Output' as the output for the media file (NOT the Desktop Audio which should be on Monitor only, mute output)

4 – Using PowerPoint for Bible Reading etc (14:48)

It's much easier to have **PowerPoint** captured from PC Screen 2 (not in display mode, but rather in 'Normal' view). Use the scene in OBS that captures screen 2 and adjust so it is capturing the large slide (not the full screen – you may need to tweak this as everyone's PowerPoint differs slightly). You can now use the left-hand column of PowerPoint in normal view to select the slide you want to be captured by OBS. There are also scenes in OBS to overlay the video on right or left-hand side of the Powerpoint slide as required.

5 – Audio Sources (20:17)

The routing of the audio from the X32 is complicated, but it's all set up and you shouldn't need to worry about it! Essentially three channels (Lectern mic, and two radio lapel mics) are sending audio feeds to OBS. These are 'pre-fade' sends, so the level is determined by the level you set in OBS NOT by the level

on the desk. Indeed the mixing desk channels can be MUTED and OBS will still record these three channels. A fourth channel is a solo mic near the music group for picking up the ENTIRE worship group (singers, piano, drums etc). This is channel 5 on the X32 which should remain muted for the congregation, but will be recorded/streamed when a song is being performed live if you select the 'Worship group' scene in OBS. This saves having to 'mix' the worship group for the live stream and recording. You will still need to 'mix' the sound for the congregation in the church though. In other words, when live services are being streamed you are setting up TWO DIFFERENT mixes.

1. The first mix is for the congregation in the church, you adjust the levels on the physical mixer (X32) as you normally would. Singers mics and piano are put through the PA but are NOT set to send to OBS. Be aware that as the room is more 'empty' than normal it will be more prone to feedback, so mute unwanted microphones unless needed.
2. The second mix is the 'recording / streaming' mix and this is determined by the levels set in OBS NOT the levels on the mixing desk. Set these levels mainly by eye not ear (aiming for a healthy yellow / sometimes red level). It's easy to turn down if something is too loud. Turning up quieter sources is more tricky. First check that the mics are close enough to the person speaking and the X32 is working properly. (If a source is still much too quiet you can click the settings wheel and add a 'Gain' filter which you can use to add up to 30dB of gain.)

It's a good idea to perform a test recording of all audio sources (and videos if you like) before the service starts. To ensure everything is setup as you expect. Actually listen back to the test recording by finding it in 'OBS recordings' folder on the PC desktop and double click to play in media player.

Note that within OBS the audio source 'Desktop Audio' should always be MUTED to prevent a double 'ghost' recording.

6 – Driving a Live Service (23:36)

Aim to start 'streaming' about 10-15 minutes before the service starts, so you have time to copy the stream URL to Weebly so it shows on the website. DO NOT start recording at this point though, instead start recording when you play the intro video, then you don't need to trim the video afterwards in order to burn the CDs and DVD.

To setup the YouTube livestream proceed as follows:

1. In OBS, under 'settings' select 'Stream' and 'Get Stream Key' This will open the YouTube Studio Stream Page (it has a black background).
2. EDIT the title so it shows the correct date for the service you're about to stream
3. Click 'Copy' next to stream key
4. Go back to OBS, paste the key into the 'stream key' field. It always seems to be the same key, but for some reason you still need to do refresh this each time, I'm not sure why?!?

About 10 to 15 minutes before the service starts

1. In OBS 'Start Streaming'
2. Show 'preservice slide' in OBS
3. In YouTube Studio it should automatically 'go live' when OBS starts streaming.
4. Then the website needs updating with the new Live Feed so folk can find it:
5. Edit the church website in Weebly (use a new tab in Chrome) and select 'Edit site'
6. Put in the correct date and add a YouTube window (or update last week's) linking to the live stream (copy the URL from YouTube, not the stream key, the URL)
7. When the service starts – remember to START RECORDING in OBS, then the recording won't need trimming afterwards
8. During the service you can select different cameras by clicking on the relevant 'scene'. It will preview in the left 'preview' window. The right 'program' window shows the output (to

livestream and recording). Right-click this window and select output to the Extron video scaler so it shows on the video monitors for the stage (and the projector) which is useful for those leading the service as well as the congregation.

9. The PTZ camera has up to 9 presets which you select using it's remote control (it is controllable within OBS but you can't store presets this way and frankly it's not as easy as using the remote).

PTZ Camera Presets: (Press the number to select, press 'reset' then the number to clear, and press 'preset' then the number to store)

1. Whole Stage	2. Lectern Focus	3. Right seat focus
4. Piano focus	5. Communion table	6. Worship Group
7. Left seat focus	8. Lectern CLOSE up	9. Whole stage medium zoom

7 – Post-Production (26:06) (burning CDs and DVD etc) (Alan or Dave will generally do this part)

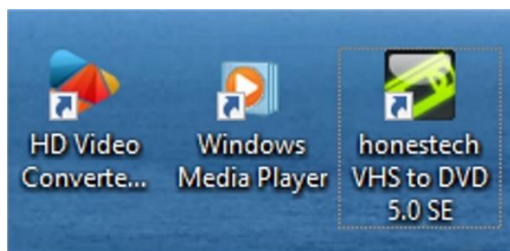
At the end of the service, stop streaming (and recording). You can then burn CDs / DVD. Close OBS.

1. Open the OBS recordings folder from the shortcut on the desktop and also open **HD Video Converter Pro**. Drag the recorded MP4 to the converter and select audio output 'Wav'. You also need to change the output settings so that it exports to 44100hz rather than 48000hz (otherwise it'll be the wrong speed / pitch). The converted WAV file can then be burnt to CD using **Windows Media Player** – this is the 'master' CD
2. To burn additional copies the standalone CD copier is very easy to use. Insert the master CD in the top drive and fill the bottom three drives with blanks. Close all the drawers and wait – it will start automatically. When done, remove the newly burnt CDs, replace with two more blanks (at present we need SIX CDs in total, master+3+2) and close the drawers again. All done (label them up, stick in envelopes).

8 – Burning a DVD (30:37)

Burn the DVD using **Honestech VHS to DVD**, drag the service recording VIDEO (MP4) to the right hand column, then to the DVD screen and then hit the flames button to start the burn. Sometimes this takes 45 minutes, sometime it takes several hours!! I've not yet worked out why. Go away and leave it and come back later to pick up the burnt disc.

These are the three additional computer programs used for post-production.



That's all folks! Have fun! Many thanks

Alan