

A guide for creating virtual video/audio ensembles

The logo for Wiltshire Music Connect, featuring the text "wiltshire music connect" in white lowercase letters on a red rectangular background.

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This document guides you through the process of creating an audio or video 'virtual ensemble' performance. The process takes time and may require you to learn some new skills, but it is worth it: your pupils will develop their identities as musicians, a new audience will be reached, and the profile of the department and school will be raised.

Get an idea of what is possible by watching [this video](#) from Wiltshire Young Musicians, created by Matt Thorpe.

To create an audio recording you will need:

- Sibelius, Muscore (free) or alternative sheet music software
- Audio editing software (see below)
- A Google Drive or Dropbox account.

To create a music video you will also need:

- Video editing software (see below)
- A Youtube or Vimeo account to publish the videos online
- Appropriate pupil filming consent.

Each of the following steps is detailed below:

1. Choose your piece of music
2. Decide if you want to create an audio recording or a music video.
3. Create an arrangement
4. Send instructions, sheet music and backing track(s) to pupils
5. Edit together the recordings
6. Publish

1. Choose your piece of music

Your chosen piece should be:

- a. Fairly easy to play, with no tricky rhythms
- b. Something popular that the musicians already know
- c. The same tempo throughout
- d. Less than 4 minutes in length

2. Decide if you want to create an audio recording or a music video.

Recordings with videos will get much more exposure and interest, but audio-only is a much quicker and simpler process. If using video, make sure you have all the relevant photo permissions and consents.

3. Create an arrangement

- Use notation software (e.g. Sibelius, MuseScore) to score an arrangement of your piece. Include all dynamics and articulations.
- Add six bars of metronome clicks at the beginning of the piece. You can do this by adding a woodblock or other percussion instrument.
- Export the parts (.pdf) and audio. On the newest version of Sibelius you can export directly to .mp3 file format. On Sibelius 7 and earlier you will need to export as a .wav file, then convert it to a .mp3 before sending it to pupils (.wav files are too big). Convert from .wav to .mp3 using Audacity or various online services.

Advanced tip:

- If you have time, it is useful to create different versions of the track for each instrument, with the given instrument higher in the mix, making it easier to play along to.

4. Send out to the musicians

- a. Create a 'Read This First' document for pupils and parents/carers. You can use the one at the bottom of this document as a guide. Getting good quality audio and video back from the pupils is the key to success.
- b. Create a Google Drive or Dropbox folder and rename it '[Song Name] Resources'
- c. Upload the 'Read This First' document, sheet music and backing track(s) into this folder.
- d. Send the link to all the musicians
- e. Wait
- f. Receive the files using WeTransfer, [Dropbox Request](#) or Google Drive

Tips:

- Set a clear deadline for recordings to be sent back.
- Instruct pupils to clap on the beats of bars 3 and 4 of the 6 bar click introduction. (Some people prefer counting, but clapping makes the editing process much easier.)
- Ability to use technology will vary widely among pupils. Be prepared to act as tech support!
- Online individual lessons and/or sectional rehearsals can support learning, and make sure articulation and timing is the same within sections.
- Most instruments, including vocals, brass, wind and strings, record fine on a phone. The exceptions are drum kit and percussion, which sound tinny and distorted when recorded on a phone, and to a lesser extent the electric bass. If at all possible, use an electric drum kit plugged into a computer (using an audio interface or special cable/adaptor) for the drums and, (less important) a direct line from the bass amp's headphone output. If this isn't possible, you might consider playing the drums on an app e.g. Garageband. Pupils recording audio in this way will need to record a separate video at the same time.
- For more tips, see the Musicians' Guidance at the end of this document.

5. Edit together the recordings

Edit the audio first, then the video.

Audio editing:

- There are numerous audio editing software options.
- Audacity (PC/Mac). Free and easy to use, and includes enough audio effects to achieve a good sound. It doesn't, however, have many of the time-saving features of other programs. You will need to convert video files to .mp3 or .wav before opening in audacity (you can do with [VLC player](#))
- Garageband (Mac). Also free, also easy to use. Garageband will automatically convert video files to audio.
- Adobe Audition, Ableton Live, Logic, ProTools. These offer additional features for editing and manipulating the recordings, and a faster workflow. Depending on the program and the operating system, you may or may not need to convert the video files to .mp3/wav
- Line up the tracks using the two bars of claps at the beginning of the song.
- Have a listen. Check for incorrect rhythms or prominent wrong/out of tune notes. You can cut these out or attempt to correct them (e.g. with autotune).
- Add a bit of multiband compression and reverb to each track. The aim here is to make all the instruments blend together like a good pasta sauce.
- Export a master copy as a .wav or .mp3.

Video editing:

As with the audio editing, you can get something pretty good fairly quickly, or spend many hours perfecting each transition.

- a. Video editing software options include:
 - iMovie (Mac). Free, easy to use though few features and time consuming to get lots of people on the screen at the same time (known as 'multi screen' or 'picture in picture').
 - [Davinci Resolve](#) - A free, industry standard program (PC/Mac).
 - Adobe Premiere Pro (PC/Mac)
- b. If you haven't edited video before, take some time to watch YouTube tutorials on your chosen program, including tutorials on how to create 'multi screen' or 'split screen' videos. See it as an interesting learning experience, rather than an overwhelming challenge.
- c. Make a plan - perhaps a visual timeline on paper - for how you want the video to look. The easiest method is to have everyone on the screen all of the time, but it can be fun to get a bit creative too.
- d. Create a new project and import all the videos, as well as your master audio track. Line the videos up in the same way as with the audio using the click, and then delete all of the audio tracks with the exception of the master.
- e. Use your new multi-screen editing skills and your plan to edit together the videos into a completed video.
- f. Export the video.

Advanced tip:

- Having 30 videos running at the same time can slow your computer down. Consider creating a multi-screen of a certain group or section, rendering this into a single video, and then reimporting this into your main video and treating the group as a single entity.

6. Publish

For audio only recordings, it makes sense to publish on Soundcloud. You may want to turn the comments function off, but it can be nice for pupils to receive positive feedback.

For music videos, the two options are YouTube and Vimeo. Both offer free accounts. YouTube allows 'unlisted' videos, meaning that the video won't appear on searches and only people with a link will be able to view. In a similar vein, Vimeo allows users to add a password to their video.

Read this first: Information for musicians

You will need:

- Your instrument
- Sheet Music
- Backing track
- Headphones
- 2 devices - one to play the backing track and one to record.

Optional:

- Laptop with USB microphone and recording software (e.g. Audacity) to record the audio separately.

What you need to do:

1. Download the sheet music and backing track
2. Listen to the backing track on headphones and have a go playing along.
3. Practise until you feel confident with your part.
4. Record your part on a different device
5. Label the video with your name and the part you recorded e.g. "Miles Davis – Trumpet 2"
6. Upload it using WeTransfer, Dropbox or Google Drive, sending details to THIS EMAIL ADDRESS.

Essentials:

- **Film in landscape** (with the phone on its side).
- **Wear headphones** – otherwise the microphone will pick up the recording of the backing track.
- **Clap on bars 3 and 4.** The backing track begins with six bars of crotchet clicks. Clap along with the clicks in bars 3 and 4. This will help the editing process.
- Make sure your instrument is in tune. If you don't have a tuner you can find one online.

Sound recording tips:

- Try and record it in a room that is carpeted and curtained. This will create a 'dry' acoustic without much echo, which helps during the mixing process.
- If you have a USB mic or audio interface and laptop, try recording with that using Audacity.
- Attention drummers! Drums and percussion are difficult to record well using a phone. Use an electric drum kit or microphone plugged in to a laptop.

Filming tips:

- Keep the camera as still as possible (ideally rest it on something rather than having someone hold it)
- Make sure there is plenty of light behind the camera. Try not to have a bright light or a window behind you
- Instrumentalists: make sure we can see you and your instrument. We don't need to see the sheet music.

- Wind and brass players: play at 45 degrees or side on to the camera
- Singers: put the camera in front of you like the rock stars you are
- Everyone: make it visual! Acting like you are headlining Glastonbury will make everyone happy.

Playing tips:

- Try having one headphone on, one headphone off, so you can hear your instrument properly.
- Exaggerate the dynamics and articulation of the piece so it is picked up well by the recording, but don't play too loudly otherwise the sound may distort.

Sending tips:

- Try to export in .mov or .mp4 formats
- Only send your best recording.
- WeTransfer is the simplest way to transfer. If you are using Google Drive remember to set the permissions to "anyone with the link" can access. Don't send them by message – it reduces the quality.