



## VIRTUAL CHOIR: WHAT YOU NEED TO GET STARTED

### Q and A

To ask the presenter a question, you will type that in the Q and A box.

### CHAT

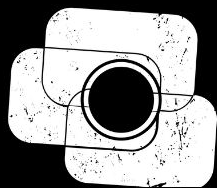
The chat box will be used for the presenters to give links and other information for participants.

### RECORDING

You will receive a recording of this webinar including a scrollable chat box.

### TOO MUCH?

If the chat and/or Q and A interactions are too distracting, just close them.



**WORSHIP**  
DESIGN STUDIO  
WDS

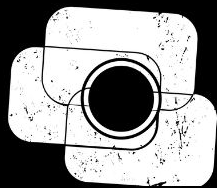




September 8 - 25

# VIRTUAL CHOIR: WEBINAR SERIES

Connecting Through Song - Getting Started - Recording Lead Tracks - Preparing Your Choir - Garage Band - Audacity - Movavi - Soundtrap & Upbeat Music - DaVinci Resolve



**WORSHIP**  
DESIGN STUDIO  
WDS



THIS WEBINAR IS PRODUCED BY

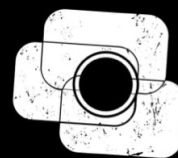
# Practical Resources for Churches



PRC is a non-profit  
ecumenical resource  
center offering consultants,  
workshops, webinars, and  
resources to congregations  
and individuals.

## SUBSCRIBERS

Central Atlantic UCC Conference  
New York UCC Conference  
North Carolina Synod, ELCA  
Northeastern Christian Church (DoC)  
Presbytery of Long Island  
Presbytery of Susquehanna Valley  
Southern New England UCC Conference  
**And individuals like you!**



**WORSHIP**  
DESIGN STUDIO  
WDS

[www.worshipdesignstudio.com/reboot](http://www.worshipdesignstudio.com/reboot)



[www.worshipdesignstudio.com/believe](http://www.worshipdesignstudio.com/believe)

[www.worshipdesignstudio.com/carol2020](http://www.worshipdesignstudio.com/carol2020)

# Agenda

1. Introduction
2. Process Overview
  - a. Pre (backing tracks)
  - b. Mid (file management)
  - c. Post (editing)
3. Software
  - a. Audio Editing Options: Audacity, Garageband, Logic, Bandlab, Melodyne
  - b. Video Editing Options: iMovie, FCPX, Movavi, Davinci
  - c. “Asynchronous” Recording options: Acapella, UpBeat (android), Zoom, and more
4. Hardware
  - a. Requirements
  - b. Peripherals
5. Wrap up, Q&A

# Introduction

- Can't I just use Zoom?
  - Latency is unavoidable
  - Webcam audio is usually not usable
- Why virtual ensemble?
  - During and after COVID
  - Transferable skills for the future
- Overall description of the process
  - Singers record themselves singing along to backing tracks
  - You collect files and edit
- Big-picture overview of what you need
  - Different software options for different objectives, level of complexity, and taste
  - Time - take into account time spent learning programs

# Process (Pre-recording)

What device(s) do your singers need?

- To record: Phone is preferred
- To play the backing track: Laptop or another phone
  - If participants only have 1 device, this is a challenge

How do your singers know what to do?

- Backing Tracks - need something to provide a common pulse & pitch center
- Live vs. MIDI
- Fixing pitch and rhythm in Live vs. MIDI
  - Useful to elicit the most accurate performances from your participants
- Conductor video
  - Helps communicate rit / accel and cues
  - May present additional technical challenges to create and/or playback

# Process (during recording)

## File Management Options

<b>Method</b>	<b>Cost</b>	<b>Pros</b>	<b>Cons</b>
Dropbox	\$10+/mo	File Requests Feature File system integration	Cost
Google Drive	Free, \$2-10/year	Familiar, free File system integration	No upload-only feature Phone -> Drive is tricky
Email	Free	Familiar, free	Tedious; file size limits (unless using WeTransfer)
SMS	Variable	Familiar, free	Tedious; compatibility; privacy concerns



# Process (post-recording)

- Importing audio and files
  - Videos will differ in file extension, resolution, audio sample rate
  - Major differences in audio volume, EQ spectrum, dynamics, and ambient sound
- Video editing basic needs
  - Ability to place 3+ videos on screen at once
- Why edit audio separately?
  - Audio-specific programs enable greater control over:
    - Volume/Loudness
    - EQ - adjust bass/mid/treble, remove harshness, unwanted resonance, etc
    - Compression - control dynamics of a performance (loud peaks)
    - Reverb - spatial effect - recreating live performance in a venue

# Audio Software Options (of many!)

<u>Name</u>	<u>Platform</u>	<u>Cost</u>	<u>Learning Curve</u>	<u>Notable Pros</u>	<u>Notable Cons</u>
Audacity	Mac & PC	Free	High	Noise Reduction	User interface No MIDI Instruments
Garageband	Mac	Free	Low	Easy	Limited plugins
Logic Pro X	Mac	\$199	Medium	Full function MIDI Instruments	Take editing Cost
BandLab	Online (Mac/PC)	Free	Medium	Platform Agnostic	Filetypes Requires internet Limited plugins
Quicktime MPEG Streamclip Handbrake VLC Player (plus online tools)	Mac/PC	Free	Low to High	Separate audio from video	Need to know which filetypes are supported by which editors
Melodyne (Auto-Tune)	Mac/PC	\$100	Medium-High	Incredible pitch & timing control	Not a full audio workstation

# Video Software Options

<u>Name</u>	<u>Platform</u>	<u>Cost</u>	<u>Learning Curve</u>	<u>Notable Pros</u>	<u>Notable Cons</u>
iMovie	Mac	Free	Low	Easy	Limited functionality (2 simultaneous videos max)
Final Cut Pro X	Mac	Free trial, \$300	Medium-High	Full function	Cost
Adobe Premiere Pro	Mac, PC	Free trial, \$20/mo	Medium-High	Full function	Cost “Elements” cheap version is useless
Movavi	Mac & PC	Free-ish	Medium	Platform Agnostic	Clunky user interface
Davinci Resolve	Mac & PC	Free	Medium-High	Full function Built in DAW	Learning curve is high

# “Asynchronous” Options

<u>Name</u>	<u>Platform</u>	<u>Cost</u>	<u>Learning Curve</u>	<u>Notable Pros</u>	<u>Notable Cons</u>
Acapella App	iOS	\$10/mo	Low	Easy	iPhone/iPad only Everyone needs app 8 singers max
Upbeat Music	Web, Android	\$10/mo	Low	Almost real-time Could be good for rehearsal	Live, for better or for worse (can't edit)
Jamkazam, Jamtaba, Jamulus, etc	Web-based	Free-ish	Medium-High	Almost real-time	Technical difficulty Can be frustrating
Zoom	Mac & PC	Free	Medium	Familiarity	Not true sync Need to record audio separately
Mideo, etc	iOS & Android	\$3	Low	Record video while listening to audio	Price Participants need to install themselves

# Hardware Requirements

- **Hard Drive Space**
  - Programs - 5-8 GB each
  - Raw Video Files - 50-200 MB / video
  - Sessions duplicate all files (you'll need 2x as much storage)
- **Computer Specifications**
  - 2 GHz+ processor / 4 GB+ RAM
  - Larger projects -> More CPU load -> Harder to edit effectively
- **Peripherals**
  - External Hard Drive
  - MIDI Keyboard - for MIDI backing tracks
  - Interface - needed to capture high quality audio from a microphone. Bundles from ~\$200
    - USB microphone - cheaper but less high-quality
  - Decent headphones - but earbuds will do. Anything other than built-in speakers

# Wrapping up

Q & A

Thanks to PRC - [www.prcli.org](http://www.prcli.org)

My website for examples: [www.sttstephen.com/video](http://www.sttstephen.com/video)

One-pager: <http://bit.ly/virtual-ensemble>

Contact me: [stephen.chen.mail@gmail.com](mailto:stephen.chen.mail@gmail.com)

Upcoming PRC Webinars this and next week

My life-changing headphones: Sennheiser HD 380 Pro