> ARRIVE EARLY – For recital hall shows you should be in the recording booth at least 30 minutes prior to the show (performers typically show up to rehearse an hour before the show so if you want to set up mics you should get there an hour before the show) – off site shows require that you pick up equipment from the recording booth and then go to the venue,

> Get the keys to the studio
   > Go to the 5th floor of Glidden, ask for the recording booth keys at the front desk of the library (they will likely request your PID)
   > LIBRARY HOURS
      > MONDAY to THURSDAY 8 am – 10 pm
      > FRIDAY 8 am – 6 pm
      > SATURDAY and SUNDAY 1 pm – 6 pm

> Pass through the green room to get to the recording booth – the green room door is just past the doors into the recital hall, go back past the kitchen and the recording booth is to the left.

> Unlock the recording booth door and leave it open, performers will occasionally have requests or questions for you

> Turn on the lamp (the overhead lights distract performers)
   > Turn on Computer
      > Log in to the SoM Studio account, leave the password blank
   > Turn on MOTU 896mk3
   > Turn on Alesis Masterlink
   > Get 2 show programs

   **Adobe Audition**

> Open the application
   > File > New > Multitrack Session
   > You can also just hit Command + N to open the New Multitrack Session dialog box

> Enter a Session Name
   > Always begin with the date in YY.MM.DD format
      > Example 17.01.18
   > Use appropriate abbreviation for the type of show
      > VA – Visiting Artist
      > GSR – Graduate Student Recital
      > FR – Faculty Recital
      > SR – Student Recital
   > Some shows will not have a title you can do this to
> Example: Trombone Choir Concert
> For these shows you can use the full title or as much as you feel is necessary to identify the concert.
> Be sure to include the name of the featured performer if there is one
> This will be listed on the program, typically the featured artist is listed first. There is also usually some information listed on the back of the program about featured artist(s). If you are unsure or think there could be more than one featured artist, check the schedule or ask the stage manager.
> Examples of some full titles
> 16.08.31 Ohio Trombone Quartet
> 16.07.10 VA Otis & Haruko Murphy
> 16.11.20 SR Jessica Piso

> Select the correct Folder Location
> On the work drive there should be 3 folders – Class Folder, Michael (or whoever is the current staff engineer), and the Past Semesters folder
> Class work belongs in the Class Folder
> Set the Template to the Recital Hall Template

> Hit OK
> Arm the track labeled “Mains” to record and turn on input monitoring (the R and the I should be lit up red and orange respectively)
> The input should be set to [01S] MOTU 896mk3...
> The output should be set to Master
> Go to File > Save or hit Command + S before moving to the next step

**MOTU 896mk3**

> Now we can engage preamps 1 and 2 on the MOTU to make sure we’re passing signal to Adobe Audition
> Press in ANOLOG INPUT TRIM knob 1 – the CUEMIX FX MIXER display should display AN 1 and the level of the preamp – press and hold the same knob until the red light beside 48v turns on beside the corresponding knob.
> When you turn on 48v there should be a signal spike on the hardware as well as in Adobe Audition – the noise floor of the room with the preamp set to +25dB is around -50dB so you should see some signal remain after the spike.
> Repeat above step for ANOLOG INPUT TRIM knob 2
> For MOST shows in the Recital Hall, +25dB of gain is appropriate on inputs 1 and 2 – get levels while the performer is rehearsing, also remember you can always turn up the level later but you can’t repair clips
> 48v is disengaged by clicking the corresponding knob once then pressing and holding until the light turns off. The PAD is engaged and disengaged the same way but you only need to press, not press and hold.
> Volume of the monitors is controlled by the MASTER VOL knob on the MOTU
Setting Up Additional Microphones

> At this point you can set up microphones in addition to the ceiling mounted stereo pair. This is a circumstantial process – there are a variety of factors that limit our ability to add microphones to the stage set up.

> What is the performer’s stage set up? Can it be captured by a single stereo pair? Can spot microphones enhance the main pair in the ceiling? Will there be movement on stage during the performance? Are there a variety of ensembles or soloist playing that would require microphone movement? Does the performer want extra microphones on stage?

> These types of questions must be taken into consideration before you begin setting up extra microphones, consult with the stage manager and performer. BE POLITE!

> When setting up microphones on stage be cognizant of the input routing – this is displayed on the STAGE INPUT DIAGRAM which is posted above the stage window in the recording booth. Inputs 3-6 are on the front of the stage, and 7 and 8 are on the stage right and left walls respectively. Outputs 7 and 8 from the MOTU are on the back wall of the stage – these are used for livestreams to feed the camera the mix coming from the MOTU.

> Microphones should be set up in a way that doesn’t distract the viewer or get in the way of the performer – consult with the performer.

> Cables should be made to look presentable and anywhere someone might be walking gaff tape should be used to secure them so no one trips.

> Once microphones are set up and the performer checks off on them, return to the recording booth and follow the same steps used on inputs 1 and 2 to set up additional inputs.

Alesis Masterlink

> This is our backup system – should the computer crash the MOTU will continue passing signal to the Masterlink and we will be able to recover the show.

> Before the show begins reformat the disk so there is enough space for the recording.

> Press Utility – the display should ask if you want to format, press yes

> Set up a new track by pressing PLAYLIST EDIT and then NEW TRACK

> Make sure settings are as follows

> CD FORMAT: RED BOOK
> SAMPLE RATE: 88.2k
> INPUT SOURCE: DIGITAL
> WORD LENGTH: 24 BIT

> Arm the Alesis by pressing the RECORD button – you should see levels at the bottom of the display.

> If you don’t see any level check the settings again

> If you still don’t see any level open CueMix FX on the computer

CueMix FX

> This is how you access the MOTU’s internal mixer

> Click the MIXES tab

> Select Bus 2 – S/PDIF 1-2
You should be getting level in all the inputs you are using on the MOTU
> Whichever inputs are being used as your main pair should not have mute enabled – if you are unsure which inputs are your main pair, unmute Analog 1 and Analog 2.
> Everything else should be mute enables other than the Bus 2 track

**Show Procedure**

> About 2 minutes or so before the show starts you should hit record in audition and press play to begin recording on the Alesis.
> We start our recording early because if there is an error it will likely occur at the beginning of the recording so we will have time to fix the problem.
> During the performance you will place markers designating the beginning and end of every piece/movement. This is done by hitting M.
> Markers can be moved while the recording is going, simply click and drag the icon beside the marker label above the timeline.
> MARKERS SHOULD BE PLACED UNIFORMLY FOLLOWING THESE STANDARDS
  > 2 sec. before the start of every movement/piece
  > 3-5 sec. after the end of every movement
  > 10 sec. after the end of every piece
  > Start counting the 10 sec. at the beginning of the clapping – if the clapping doesn’t last 10 sec. place the marker at the end of the clapping.
  > Some performers will space their movements too closely for us to make our cuts – if there is 5 sec. or less between movements do not cut individual movements, leave the piece whole.

> MOVEMENTS/PIECES
  > A piece can be made up of several movements – the audience is not supposed to clap between movements so it is important to learn how to recognize them so you can edit the performance correctly.
  > Typically a pause of about 10 sec. or so – if you watch the performer they will often adjust themselves, their instrument, or their sheet music.
  > Playing style is typically different between movements
  > Stage managers can assist in locating movement changes
  > It is also quite simple to find movement changes after the show has finished if necessary – if you know there are 5 movements look for the 4 most clear pauses in the waveform (the 5th pause will be followed by clapping for the end of the piece), listen back and confirm before you make your edits.

> NAMING MARKERS
  > Markers placed at the beginning of a movement/piece must be named according to the movement/piece.
  > For these names we follow fairly strict conventions
  > This is the format:
    > Track number [space] composer’s last name, title of piece – movement
    > There is information provided on the programs that we can omit from our titles.
    > years, key of the piece (ex “in D major…”)


EXAMPLE TRACK NAMES:
> 01 Prokofiev, Sonata No.2, Op. 94 – I. Moderato
> 02 Prokofiev, Sonata No. 2, Op. 94 – II. Presto
> 12 Stravinsky, Duo Concertant for violin and piano – IV. Gigue

Occasionally a performer will play an encore, for this reason it is important to wait until you are sure the show is over to stop the recording.
> Stop the recording by hitting space
> Stop the Alesis by hitting the STOP button

Editing/Mixing/Exporting
> If you set up a stereo pair you want you to use instead of the Main stereo pair in the ceiling be sure to follow all these steps on the appropriate track and mute the Main pair.
> If you have spot microphones set their level using the mixer section which is on the second tab on the marker window. Also be sure to edit make edits and fades on all the necessary tracks.

Connect your markers, there should be a head (named marker) and tail (unnamed marker) for each track.
> Click the head marker for a track, shift-click the associated tail marker.
> Click the Merge selected markers button in the top left of the screen – located to the right of the trash icon.
> Repeat this for each track until all markers have been merged.

Once all the marker ranges have been created we cut the tracks according to the markers (THIS IS WHY IT IS VERY IMPORTANT THAT MARKERS ARE PLACED PRECISELY).
> Zoom out and double click the left side of the marker range that is to be cut – this should highlight the range – be sure the waveform is selected, if it is selected the highlighted section should be white, if it is not selected the highlighted section will be a grey color.
> Press Command + K to cut the region, select the audio prior to the marker region, it should be separate – then delete the un-needed section.
> Move through the rest of the recording following this same procedure – delete all the audio that is outside of the marker regions

Now place fades at the beginning and end of each section.
> Zoom back in so you can see better
> When you select a region of audio there is a fade box in the top left and right corners of the region – click and drag this to create the fade.
> Start fades will be about 2 sec. (full volume at beginning of performance)
> End fades will be about 3-5 sec. or 10 sec.
> Do not let the fade touch any of the waveform for the performance
> Cosine value should be 0 – we want to create S curve fades as they sound the most natural.

Zoom out so you can see the entire timeline
> Click and drag so you select all the audio regions in the tracks you have recorded.
> Click Multitrack > Mixdown Session to New File > Selected Clips
> In the center of the new session there should be a tool box on the waveform section
> Click and drag the gain adjustment knob until the waveform is as large as you can make it without any peaks hitting 0dB at the top or bottom of the waveform screen.

> Go to File > Export > Audio within Range Markers...
  > Make sure File Name: Use marker names in filenames is checked
  > Select your export location
    > Find the folder your project is saved in on the work drive
    > Once you have selected your project folder and are inside it, create a new folder – name it the same thing.
    > Once that folder is created select choose in the bottom right of the window
  > Be sure the Format is Wave PCM – the sample type should be 44100 Hz Stereo, 16-bit
  > Press Export
  > Once the export is complete you may close the mixdown session
    > Select the dropdown menu to the right of the mixdown session name in the top left of the session window (beneath the buttons labeled waveform and multitrack).
    > Press Close
      > A window will ask you if you want to save changes to your mixdown session – select No.
  > The original recording session should now be displayed
    > Hit command + S to save
    > Close Audition

**Server Upload**

> Locate the folder where you bounced your files to on the work drive
> Delete all the .pkf files from the folder (if there are .pkf files) – these are not needed
> Open Finder and hit Command + K
> Connect to the fine arts server – the address should be in the favorites list
  > if this is lost the address is: smb://Shared.ohio.edu/finearts/
> When prompted for your name and password to log in, use your OU login information
> Navigate to the som-concert-arc folder
> Select the appropriate year range
> Drag the folder containing the exported files from the work drive to the folder corresponding to the correct semester on the server.
> THE FOLDER YOU UPLOAD TO THE DRIVE SHOULD CONTAIN ONLY THE .WAV FILES YOU EXPORTED FROM THE SESSION.

**Tear Down/Clean Up**

> Turn off 48v on every channel of the MOTU
> Turn off the MOTU
> Turn off the Alesis
> Log out of the computer
> If you took out any microphones put them away, wrap cables neatly and place them on the table by the microphone stands.
> Throw out any gaff tape you might have used
> Be sure to not leave garbage in the recording booth
> BRING KEYS BACK TO THE LIBRARY
  > If the library is closed you can put them in the book return

**Memorial Auditorium/Location Recording Manual**

> Secure a recorder from the MDIA check out room – talk to Kyle (this should be done immediately once you are signed up to record a location show).
> Arrive at Glidden 1 hour before the show to pick up recording equipment.
> Check for programs on the shelf – we are sometimes responsible for bringing these to the location – if there are no programs then they should already be at the location (if the programs are not there you should probably try to inform the stage manager or whoever appears to know what is going on).
> You can now leave to travel to the location
  > Final Equipment Check
    > Recorder – zoom h4n or f8 or whatever device you acquired on the street
    > Pair of 414s + their shockmounts
    > Pair of 100’ XLR cables
    > (Mem Aud Shows Only) Pair ¼” to XLR Male Patch Cables
    > Pair of tall stands
    > Programs maybe?
> When you arrive set up the stands front and center – this may require some communication with the performers, in some spaces they will have a preference as to where the stands are placed or how you run the cables.
> Secure microphones on the stands and plug in the XLRs – you can then raise the microphones to an appropriate level – typical rule of thumb for this is you want the microphone to be able to see every instrument you want to record.
> Run cables to the Q&A boxes in Mem Aud or straight to the recorder in other locations – be sure you are keeping the cables organized and out of the way.
> In Mem Aud you’ll need to patch the Q&A boxes into the recorder using the ¼” to XLRs.
> Run the recorder for the entire show.
> Once the show is over – stop the recorder – pack up your things – then run through your check list to make sure you have everything.
> Return to Glidden to edit the show
> Return the keys
> GOOD JOB

**Trouble Shooting**

> Is the MOTU making an awful noise?
  > Turn the MOTU off and on
  > Turn the MOTU off, quit your Audition session – delete that session, turn the MOTU back on, create a new Audition session
  > Turn off the MOTU, quit Audition, delete session, restart computer, turn on the MOTU, create a new Audition session
  > Still not working? Call Michael.
General Rules/Etiquette things

> Do not play/touch performers instruments
> Do not play the piano in the green room or the pianos on the stage
> Keep discussion volume low when you are in the recording booth
> Be polite and accommodating