RIT MAGIC Exhibition

SOFA Screenings Policy

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Prepared For
SOFA Faculty & Students

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I. Introduction

The purpose of this document is to highlight the procedures and policies that will govern SOFA screenings, which occur at the end of each semester in the Wegmans Theater. Current SOFA screening policy allows for two Tiers of exhibition that provide different capabilities and complexity of workflow. It is intended that students choose a Tier for their film taking into consideration their technical requirements and understanding of the workflows that govern each Tier. Listed below are the options that are available for submitting your film - this includes basic detail on the technical requirements as well as potential benefits to creative storytelling. *This document is only intended to give you a basic overview of the technical policies and required formats. Once you have decided on a format that you would like to screen, please reference the full documentation for that tier:*

> ***MSS-2191-02P: SOFA Tier 1 Technical Policy***
> ***MSS-2191-03P: SOFA Tier 2 Technical Policy***

All documentation referenced can be found at ***fvasa.cad.rit.edu/documentation***. For additional help, email ***fvasa@rit.edu.*** Please note that while filmmakers have a choice between Tier 1 and Tier 2, ***those who wish to submit films with multichannel surround sound, 4K resolution or widescreen formats must finish their film via Tier 2.***

II.   Tiered Screenings

Both Tiers 1 and Tier 2 are listed out in detail below. While it is important that you choose the Tier that best fulfills the screening requirements of your film, also understand that Tier 2 represents the professional expectation and mentalities that you will be exposed to once in the industry. Even if your film might not need all the capabilities of Tier 2 DCP exhibition, you may find benefit in learning the Tier 2 professional workflows earlier in your time here at SOFA. The earlier you learn how to successfully complete a Tier 2 film, the more prepared you will be not only for future SOFA projects but also work you may be expected to complete in the industry.

A. Tier 1 - Video

Tier 1 provides simple procedures and requirements for students who do not need or want a higher quality exhibition experience. Tier 1 supports video codecs and standard HD video formats. Tier 1, however, will not support all of the benefits and features that Digital Cinema can provide a filmmaker.

In SOFA's best interest, 1st and 2nd year students will not be required to understand Digital Cinema formats, especially when the capture quality of equipment used in Production 1 & 2 will not benefit from a Tier 2 submission. This tier is not meant to be the preferred finishing route for Junior and Senior work and therefore should not be promoted as such.

B. Tier 2 - Digital Cinema

Given the Wegmans theater can take full advantage of the features of Digital Cinema, Tier 2 has been created for students to showcase their films in professional formats. Students who create Tier 2 films will learn to package their own DCP (Digital Cinema Package) using industry practices. This is designed for students who want to take advantage of the expansive sound and picture formats available to digital cinema - with the expectation that they follow the correct procedure and specifications.

Tier 2 films will also be granted the ability to QC (quality control) their film in the Wegmans theater before screenings to verify the correct format and preview picture & sound. Students should be aware that choosing Tier 2 will require some new technical practices and multiple deliverable files for screenings.

III. Tier 1 Summary

A. Submission Format - 1 Video File

Tier 1 will be fulfilled by students submitting a video file to screenings. This will be an H.264 video file. An updated set of export settings for containers and codecs will be recommended to ensure the best possible experience in the Wegmans theater - see the documentation for Tier 1.

B. Benefits

- Single video file deliverable. Minimal format options/decisions

- Less technical complexity

C. Drawbacks

- No support for 4K resolution or true CinemaScope widescreen aspect ratios.

- No support for 5.1 or 7.1 surround sound

- Audio is limited to AAC (compressed) 2-track stereo. Tier 1 will not take advantage of the two low-frequency emitters (LFE) speakers in the theater

- All Tier 1 films will be played back at volume fader level 5.5 (80.0 dBC). Only Tier 2 allows for custom a fader level specified by the director during quality control (QC).

For instructions and details on Tier 1 submission, please reference the following documentation at ***fvasa.cad.rit.edu/documentation:***

MSS-2191-02P: SOFA Tier 1 Technical Policy

IV. Tier 2 Summary

A. Submission Format - 1 DCP & 1 Video File

Tier 2 exhibition will require that students conform their film to DCI specifications and pack their own DCP. While this may seem like a daunting task at first, once broken down and taken step by step, the process can be straightforward. The DCP will show during screenings, but students utilizing Tier 2 must also submit a **video file** of their film as well for the SOFATube archive.

B. Benefits

- Supports all Digital Cinema benefits: 4K, widescreen CinemaScope, multichannel surround sound and future HDR, WCG, HFR and Dolby Atmos

- Higher fidelity image. No compression artifacts, 12 bit color.

- *Uncompressed* 48kHz/24-bit WAV audio.

- Students learn & execute a full DCI workflow, which many will be asked/expected to understand once in the industry

- Promotes a more professional screening process that mimics post-production and exhibition workflows seen in the industry

- Quality Control (QC) in Wegmans theater - filmmakers can preview their films to ensure that the presentation matches their creative intent

- Directors and/or sound mixers in SOFA can set a custom volume fader level during the QC step

C. Drawbacks

- Students must adhere to professional technical processes and requirements (refer to fvasa documentation and reach out for assistance)

- Students must schedule time for QC before the screenings submission deadline

- Time should be allotted for DCP packaging before the submission deadline

- Two deliverables are required for a full submission (video & DCP)

For instructions and details on Tier 1 submission, please reference the following documentation at ***fvasa.cad.rit.edu/documentation:***

MSS-2191-03P: SOFA Tier 2 Technical Policy

V. Notable Screening Policies

Please see the SOFA handbook for all SOFA Screenings Policies.

A. Audio Leveling Policy

For any student film to screen in Wegmans Theater, the audio must be either 1) mixed in MAGIC Sound Mix (2100) and monitored at Fader Level 5.5 (80.0 dBC), or 2) mastered to the following SOFA Theatrical Mixing Standard:

> **Maximum Peak:** -3 dBFS
> **Target Integrated Loudness:** -27 LKFS/LUFS (+/-2 LU)

Films that do not adhere to these technical requirements for audio will be subject to a 3.5 Fader Level reduction (equivalent to 47.66 dB) in order to ensure the safety of the audience and the playback system in Wegmans Theater. This reduction will only be applied after the submission deadline has ended. A student that submits an incorrectly mixed film will be permitted to adjust their mix and resubmit up to the submission deadline.

Although Tier 2 films not mixed in MAGIC Sound Mix must adhere to the SOFA Theatrical Mixing Standard, the mixer may choose a custom Fader Level during QC *approved by the support staff running QC.*

If your mix does not meet spec and cannot be remixed before the submission deadline, a hard-refactor of the entire mix to the required specs is the recommended solution. This may affect the dynamic range and mixing intent of your audio, but will prevent your film from undergoing the Fader Penalty policy.

B. Amnesty Policy

The amnesty deadline for films occurs on the <u>Wednesday before the general submission deadline</u>. If a film fails the QC process, the procedure for handling resubmission differs if this deadline has passed.

If you're film does not pass QC for Tier 1 or Tier 2:

Before Amnesty Deadline
- If the film requires <u>only technical adjustments</u> to fully pass QC, the student may work in conjunction with FVASA to determine when a revised version of the film may be submitted before the filmmaker's screening time. The student does not have to forfeit

said screening time, given they have one, as long as they meet the agreed upon deadline.

After Amnesty Deadline
- If the film can still exhibit, though flawed, with no harm to equipment or audience and the student would like to retain their screening time, the media may play as submitted. In such cases, FVASA reserves the right to assist in this decision by making any technical adjustments deemed necessary to minimally protect equipment and audience.

- If the student wishes to correct the flaws and is willing to forfeit their screenings time to do so, they may remaster their work and submit again provided it can be completed prior to the general submission deadline.

- If a correction is necessary for the film to exhibit but said correction cannot be made prior to the submissions deadline, the film will be considered originally late and the student must seek permission from the SOFA administrative chair to screen.

C. Captioning Requirements

For any student film to screen in Wegmans Theater, all auditory cues including dialogue and integral sound effects must have burned-in onscreen text to meet RIT's accessibility requirements. Tutorial videos and tips on how to add open captions to your film is available on the FVASA website at:
https://fvasa.cad.rit.edu/documentation/captioning/

VI. Appendix - Definition of Terms

Codec - The compression algorithm(s) by which video content is compressed and stored for efficiency in storage and transmission.

Container - The wrapper that surrounds a video codec used to transport an encoded video file from system to system.

CinemaScope - A wide screen format that originated in the 1950s, typically taking on the aspect ratio of 2.39:1.

Digital Cinema Initiative, DCI - The Digital Cinema Initiatives, or DCI, is a consortium of studios that have come together to recommend specifications for an open architecture for digital cinema, implemented through Society of Motion Picture and Television Engineers (SMPTE) standards.

Digital Cinema, Package, DCP - The final digital collection of assets that comprise a film that is destined for exhibition. DCPs are how all theaters playback professional films in accordance with the standards set by the DCI group.

Digital Cinema - Digital Cinema is digital exhibition of a finished film in a theatrical environment. This is distinct from a film print which can also be shown in a theatrical environment.

DCP-o-matic 2 - An open source utility that can be used to generate DCPs from various input media sources.

Digital Source Master, DSM - The version of a film once sound, editorial, color, and VFX have been completed. This is usually the final deliverable from post production to those responsible for exhibition and distribution.

Dolby Atmos - An object-based method of rendering immersive sound for cinema. MAGIC Spell Studio's Wegmans Theater supports playback of Theatrical and Home Atmos.

Fader, Fader Level - A scaled volume range utilized by the professional Digital Cinema industry in both post production and exhibition. Fader 7 is considered by Dolby Laboratories to be the level at which a film should be mastered and played back given that the room has been properly calibrated at this level to 85 dBC. Unfortunately, this standard varies from system to system based on the calibration and general monitoring level encountered in the real world and SOFA facilities. Wegmans Theater operates on Fader 5.5 (80.0 dBC) for SOFA films. Tier 2 Directors and Mixers may choose a custom Fader level during QC within reason.

High Dynamic Range, HDR - High dynamic range is exhibition of a film on a display that has more than the typical 3000:1 contrast ratio of Digital Cinema. HDR can offers brighter whites and deeper blacks which enhance the viewing experience.

High Frame Rate, HFR - Exhibition that breaks from the typical 24/48 frames per second convention. Typically characterized by film shot and displayed in 120FPS.

MSS - RIT Magic Spell Studios

Quality Control, QC - The process by which a film is verified to meet both technical requirements of exhibition and artistic intents of the filmmaker.

Wide Color Gamut, WCG - Encoding and exhibition of a film on displays that have a color gamut that is larger than DCI P3, the typical cinema color encoding target. This will offer more vibrant and saturated colors than typically possible which can be used for specific aesthetic intents.