

Monitoring Audio for Screenings: Premiere Pro

This document will show you how to monitor the loudness and level of your audio in Adobe Premiere Pro so that you may confirm that your mix meets the technical requirements for screenings in Wegmans' Theater.

Screenings Audio 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)**

Any film that does not meet these specifications is subject to a significant playback level penalty during screenings. These new specifications are set in place to mitigate the serious issue of incredibly loud mixes sent to screenings. The #1 priority is to protect the audience's ears and the theater's equipment and that is the intended goal of these new requirements.

Checking Maximum Peak

Checking the maximum peak level of your mix has not changed from how you would normally monitor in Premiere. As you watch your film back, refer to your **Master Meter** typically located on the lower right of your editing window. If your film **at any point** goes above **-3 dbFS**, then you must resolve the problem area/s in your mix before submitting to Screenings.

Checking Integrated Loudness

In order to check integrated loudness, you will be using *Loudness Radar*, an audio plugin that is bundled with every installation of Premiere Pro. Loading this plugin into your Audio Track Mixer is relatively straightforward, although attention must be paid to how it is configured and read using the above technical requirements for integrated loudness. Below is a walkthrough on how to set up and configure Loudness Radar.

Loading Loudness Radar:

1. From the **Editing** window, open up the **Audio Track Mixer** by navigating to the menu bar at the top of the screen and following the drop-down menu path: *Window>Audio Track Mixer*.

2. In the **Audio Track Mixer**, twirl down the caret located in the upper left corner of the panel to reveal the FX inputs for all of your audio tracks.
3. On your **Master Track** (the right-most track), click on any of the five open FX inputs to open a drop-down menu of all the audio effect plugins. Navigate to: *Special>Loudness Radar*. The plugin **Loudness Radar** should now appear in the FX input box that you selected.
4. Double-click on **Loudness Radar** to bring up the main plugin window.

Configuring Loudness Radar:

1. At the top of the window where it says **Presets**, change the current preset configuration to **Cinema**.
2. Click on the **Settings** tab. In this panel, you will need to change the following settings to match the screenings technical specifications for audio.
 - *Target Loudness: -27 LKFS*
 - *Peak Indicator: -3.0 dBTP*

Monitoring using Loudness Radar:

Now that Loudness Radar has been configured properly for your editing session, you may now use it to monitor your audio loudness *in real-time*. Here are some tips on how to read it:

1. With the Loudness Radar open, start from the beginning of your film *and watch the entire program*. The requirement for -27 LKFS is that it considers the entire length of the program.
2. After you have watched your entire film back, look at the number at the bottom right corner of the window where it says **Program Loudness (I)**. This number is your integrated loudness and should not go above -27 LKFS *by the end of your film*.

*Note: Right-clicking on Loudness Radar in the FX input will give you the option of monitoring pre- or post-fader. Pre-fader will cause Loudness Radar to ignore the level at which the master fader is set; post-fader will cause Loudness Radar to monitor the signal based on the level at which the master fader is set. **Regardless of pre- or post-fader listening, the level at which your master fader is set is the level at which your final audio will export at!***

Quick Tips to Fix Your Mix

Below are a few suggestions on where you start solving issues in your mix when it does not meet the technical specifications.

- If your maximum peak is above -3 dBFS, but your film is mixed at a reasonable level in terms of loudness, look at the waveform for the highest peaks. Sound effects such as door slams and gunshots, or voice over with lip smacking can lead to transients that may not always be perceived as too loud, but can go above -3 dBFS and even to 0 dBFS if left unchecked. A suggestion would be to automate your volume at these moments.
- Look at the longest and loudest portions of your film and adjust your levels there. These would be passages where your film went way above a loudness of -27 LUFS for an extended period of time. If you were watching the radar during playback you may have seen the outer dashed ring indicating *Momentary Loudness* go above -27 LUFS. Note that Momentary Loudness is integrated of 400 ms and is permitted to go well above -27 LUFS in a dynamic mix. This metric can be used to check roughly at what points the loudness of your film is way above -27 LUFS
- Consider the loudness and level of your individual stems. Where is your dialogue, effects, and music generally sitting at on their own? Mixing to this standard considers a *theatrical environment* such as Wegmans' Theater, where normal speaking level dialogue will fall around -20 dBFS, with louder speech going above that by 6 or so decibels and quiet speech falling a similar amount below that.
- Think about the *dynamic range* of your mix and the level that it is generally sitting at. Is it predominantly around -15 dBFS? That could mean your film is mixed too loud overall and a quick fix may be to just bring down the master fader.
- Consider the overall level of your entire film. The policy permits you to have a maximum peak of -3 dBFS, but the integrated loudness requirement denies the ability to mix your entire film at -3 dBFS. Although we are using a loudness metric typically employed for broadcast and streaming applications (Netflix), you are still permitted to quite a large dynamic range in Wegmans' Theater, more so than you would be mixing your film for web delivery (Youtube, Vimeo, Sofatube).

