

# Video Calibration

## What is display calibration?



[www.audisee.in](http://www.audisee.in)

The foundational and primary goal of display calibration is image fidelity (faithfulness to the original program). Display calibration is the process of using a display's setting controls to adjust the on-screen image so that it matches the original source content. The goal of calibration is to make the display behave like a professional monitor used in the studios by a content creator (Producer/Director).

Ideally, the display should serve as a neutral and accurate communicator of the video signals delivered for the viewer. Only then can artistic integrity, display accuracy and image fidelity be completely enjoyed. In the end, it's really all about correctly communicating the art from the producers to the end consumer.

**The video industry is governed and guided by standards, engineering guidelines and recommended practices defined by organizations such as:** The Society of Motion Picture and Television Engineers (SMPTE), the International Organization for Standardization (ISO), the International Telecommunications Union (ITU), the Advanced Television Systems Committee (ATSC), etc.

These standards and practices are intended to encourage and preserve: Signal, equipment, program accuracy, integrity, unity, consistency and repeatability all along the chain from program production through post-production and to exhibition / broadcast / tape / DVD / BD / etc. and finally to the audience (consumer). If at any step along this path industry standards are deviated from, the program can become distorted.

## Why calibrate a display?

**A fully calibrated display provides many benefits compared to an uncalibrated display with factory settings. These include:**

- Colour accuracy
- Image clarity & full details
- Minimize picture artifacts and distortion
- Compensate for changing lighting environment
- Display a sharper focused, full resolution image
- Have a cinema theater "film look"
- No fatigue and easier on your eyes
- Reduce energy consumption
- Extend display life

Calibration improves the ability to have a more enjoyable viewing experience. Displays that provide a proper amount of brightness to deal with ambient light and glare are easy to read and have more natural colours for an overall more pleasant and engaging image. For content creators, having a calibrated display is a critical element in an effective digital workflow to ensure content color consistency and prevent mistakes that can cost time and money. Video displays used by program professionals are designed, manufactured and calibrated to tightly adhere to industry standards. They include in their design certain features that allow technicians to adjust them periodically (sometimes each day), using reference test signals, to insure picture accuracy. Such professional video monitors cost up to tens of thousands of dollars for relatively small sized screens. Displays also change colour as they age, but proper periodic calibration keeps them looking as good as the day they came out of the box. Calibration offers a clear set of benefits to provide the user(s) the best image quality possible from their display and experience content as the creator intended.

## Why are displays not already calibrated?

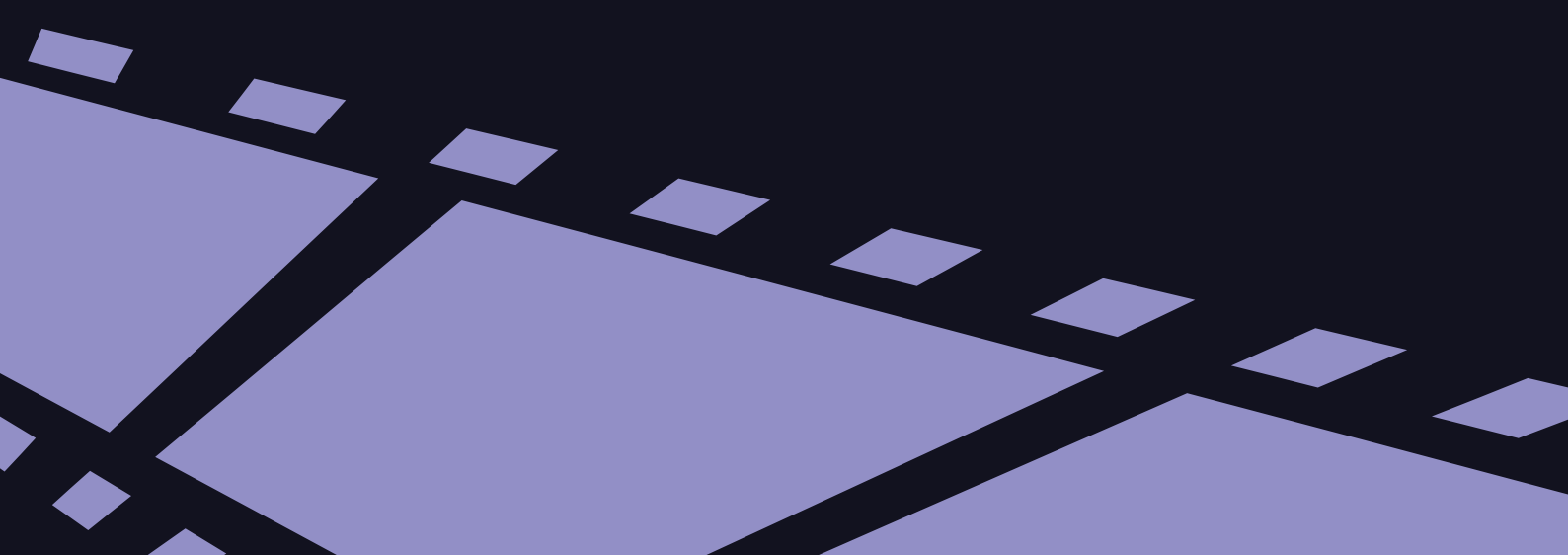
It is a common misconception that displays are already calibrated during production to look their best. In reality, manufacturers do not ship displays calibrated from the factory and most are far from optimized for office or home use. Consumer TVs and projectors cost far less than professional displays. Manufacturers often cut corners to reduce costs to compete with one another in the marketplace. They also adjust their products at the factory to attract attention to their TVs on a show floor alongside samples of their competitors' wares. This could be compared to straining one's voice in a shouting match. Such over-accentuated pictures may dazzle the casual shopper but are not representative of correct pictures for regular viewing in the home. Video industry standards and practices are regularly deviated from and ignored by manufacturers.

In addition, the display's viewing environment has a significant impact on what is seen on screen, so a display can only be properly calibrated once installed. Every different location where a display is to be installed has its own unique environment with different coloured walls, ceiling, floor and a spectrum of possible ambient lights. Each of these elements greatly affect how light is perceived by the user's eyes and the calibration adjustments needed to compensate. How a display is calibrated for a bright office will be very different from how it would be calibrated for a dark home theater environment. This is why display calibration is not a 'one size fits all' process in which settings for one display will not always work for another, even if they are identical models.

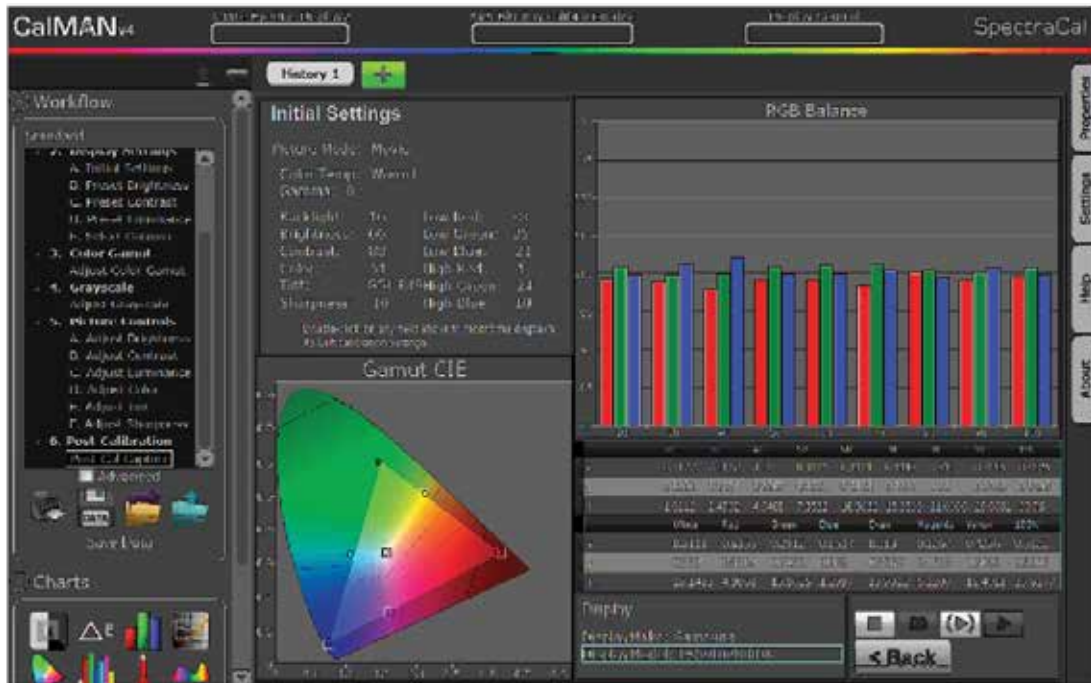
## How to get a Display Calibrated?

Fortunately, most consumer displays include adjustment features that allow someone who knows what they're doing to make the picture behave closer to proper standards. Display calibration is simply making adjustments to the video device in order to achieve a more accurate picture. Professional results can be obtained from consumer display devices with the right understanding, skills and tools.

The most complete resource for optimizing consumer displays is available in the form of professional calibration services such as THX and ISF Video Calibration. Such services can be performed by consumers, but only after much study, investment in technical instruments, suitable aptitude and perseverance. Hiring a trained professional like **Mr. Mohammed Vasif from Audisee** is much less daunting to the average display owner. In any case, the display owner must keep in mind that the goal of calibration is not to achieve any individual's preconceived notion of what a "good" image should look like. The originator of a given video program is the one responsible for determining how the image is supposed to appear. Ideally, the display should serve as a neutral and accurate communicator of the video signals delivered for the viewer. Only then can artistic integrity, display accuracy and image fidelity be completely enjoyed. In the end, it's really all about correctly communicating the art from the producers to the end consumer.



# Get Audisee's video calibration services today and see the reality.



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