

Why content creators and producers should create Dolby Vision masters



Why should I master my show for Dolby Vision?

More creative storytelling options

- Dolby Vision™ offers a wider color gamut than traditional HD or UHD Rec. 709 TVs, matching the P3 color gamut available in the theatrical space. The creative palette is increased, offering the option to make your content more colorful (and with more accurate colors) and even get colors that weren't possible in Rec. 709, but that the eye can see.
- Compared to traditional HD or UHD standard dynamic range TVs, Dolby Vision offers high dynamic range (HDR) image capability (or brighter/darker pixels). This offers an opportunity for more contrast and perceived sharpness and depth. It's not just about a brighter peak luminance you can achieve more detail in both the highlights and the shadows. This results in a more lifelike image that will better immerse your viewer in the story. However, if you choose to grade only in SDR, the chances are high that modern TVs will stretch your content and distort the image to a pseudo HDR.
- Modern digital cinema and film cameras have been able to capture this extended dynamic range and wider color gamut for years, but our TVs have not been able to reproduce it until now. Colorists have had to go to great lengths to scale and limit this data for traditional SDR/Rec. 709 devices.
- Many colorists and creatives have stated publicly that doing the Dolby Vision "hero" grade first on a larger canvas and an expanded palette offers an easier job (with less power windows/keys) to get a great picture. They have also said that the Dolby Content Mapping Unit software/process works effectively to create a great-looking SDR master from the HDR hero grade, maintaining more detail in the highlights and shadows than if the colorist had spent time with power windows grading the SDR version separately.

Save time, money, and effort

- Grading your title for Dolby Vision provides all the deliverables you need, in an efficient way (SDR Rec. 709, generic HDR 10, and Dolby Vision). It complies with the new Interoperable Master Format (IMF) standards that studios have adopted or are moving toward adopting.
- Creating the **Dolby Vision hero grade first saves roughly 60% of resources compared to creating a traditional SDR grade and then a costly separate HDR grade.** It requires approximately two to three days to create a standard one-hour show SDR color grade. A start-from-scratch HDR regrade would likely take a similar amount of time. (It can be longer as the look was set on the SDR grade, and trying to match that look is often challenging and limiting.) But if you spend two to three days for a Dolby Vision hero grade, *it takes less than one additional day* to create the SDR metadata pass. From that, you can derive all your deliverables. It's less than one additional day of grading to help future proof your work.
- There is no license fee to the studio or the show producers to create Dolby Vision content and all other deliverables. The Dolby Vision license fee is for TV or set-top box manufacturers, and it's roughly the price of a cup of coffee per unit. Post houses do incur some nominal costs to purchase the equipment and software needed, which is not outside the norm.
- Creating content in Dolby Vision helps ensure that your content will live on for longer and your distribution license agreements will more likely be renewed. For TV models on the market in 2017, 40% are HDR capable. This number will continue to grow. Content distributors and services such as Netflix[®], Vudu[®], and Amazon[®] offer premium Dolby Vision services and have expressed their desire for HDR content going forward.



A proven workflow that is fast gaining adoption

- Dolby has led the way with research, testing, and development on the best ways to implement HDR, leading to SMPTE standards 2084 (PQ luminance curve for HDR displays) and SMPTE 2094 (dynamic metadata).
- Dolby Vision uses dynamic metadata to map on a shot-by-shot/scene-by-scene basis to the specific TV or playback device by using trim control and metadata generated by the colorist to best maintain artistic intent (set in the color suite) all the way to the consumer. Dolby tests and certifies each of these TVs, knows their capabilities, and knows how to best tone map to each of them.
- Dolby Vision provides the best-quality HDR signal delivered to the consumer TV or device: generic HDR (10 bit) and Dolby Vision (12 bit). It also will better scale to future TVs and mobile devices and will not "stretch" your content.
- Colorists can control how the content maps to the SDR version and specific HDR targets like a 600-nit TV. Dolby works closely with the post community to continuously refine and improve the process.

- The Dolby Vision Professional Tools and Workflow have won two industry technology awards: the Hollywood Professional Association 2017 Technology Award and the Advanced Imaging Society 2018 Technology Award.
- Dolby offers post production facilities commissioning and training, and fully certifies their equipment and capabilities. Dolby verifies that these facilities are using the correct and calibrated equipment, process, and workflow through semiannual audits to maintain quality.
- Five of the top six rated consumer televisions in 2017 were Dolby Vision displays: <u>https://www.cnet.com/topics/tvs/best-tvs/</u>
- There is great Dolby Vision momentum in the marketplace. There are 10 major TV OEMs, 7 Hollywood studios, and more than 250 titles, with 250 hours of Dolby Vision content available for the home.

What are the next steps?

- Schedule a private demonstration with your team, producers, show runners, or creatives at Dolby or at your Dolby Vision Certified Facility. See how easy the process is and the quality you can achieve! Contact tom.graham@dolby.com.
- If you can't attend a demonstration, **here's a short** video you can watch to understand more about the process: <u>https://vimeo.com/174552891</u>.
- Find a Dolby Vision Certified Facility near you: <u>https://www.dolby.com/us/en/technologies/dolby-vision/dolby-vision-for-creative-professionals.html#4</u>

- Don't see your post house listed? No problem, have them contact us to find out how to become certified. Contact tom.graham@dolby.com.
- Tell your post house (on your work order) that you want the Dolby Vision first process! This ensures you are going to get the best results and most efficient/ cost-effective color grade. Have them contact tom.graham@dolby.com.

