

[Metal / HDR content](#)

HDR content

Take advantage of high dynamic range to present more vibrant colors in your apps and games.

Overview

High dynamic range (HDR) content has a wider range of brightness levels than standard definition content. Certain displays, which macOS refers to as extended dynamic range (EDR) displays, can physically replicate those extra brightness values on a screen. You can use Metal to detect EDR displays and work with HDR content, such as from a video asset or directly from your app.

Topics

High dynamic range content

- { } Processing HDR images with Metal
 - Implement a post-processing pipeline using the latest features on Apple GPUs.
- 📄 Displaying HDR content in a Metal layer
 - Bring your high dynamic range (HDR) content to compatible Mac displays.
- 📄 Determining support for EDR values
 - Check whether a display supports EDR.
- 📄 Using color spaces to display HDR content
 - Use a color space when you don't need to edit or process the pixel data.
- 📄 Using system tone mapping on video content
 - Use EDR metadata to apply the default system tone mapping to a layer.

- 📄 [Performing your own tone mapping](#)
Apply your own tone mapping to get the exact behavior you want.
 - 📄 [Implementing tone mapping on reference displays](#)
Detect reference displays and keep your content within the capabilities of the display hardware.
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See Also

Presentation

- 📄 [Managing your game window for Metal in macOS](#)
Set up a window and view for optimally displaying your Metal content.
- 📄 [Managing your Metal app window in iPadOS](#)
Set up a window that handles dynamically resizing your Metal content.
- 📄 [Adapting your game interface for smaller screens](#)
Make text legible on all devices the player chooses to run your game on.
- ☰ [Onscreen presentation](#)
Show the output from a GPU's rendering pass to the user in your app.