Tune High Dynamic Range (HDR) Playback with 25.20.100.6323 Intel® Graphics Driver

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The latest 25.20.100.6323 Intel® Graphics Driver exposes the ability to tune visual effects such as sharpness and total color correction (TCC) for high dynamic range (HDR) playback content from Intel® HD Graphics Control Panel (Intel® HD GCP). This is applicable on 7th and 8th generation Intel® Core™ processor graphics platforms.

This feature can tune the visual effects to suit your preferences when playing HDR videos on Microsoft* Movies & TV app, YouTube* or Netflix*. This feature is off by default, and once enabled via registry key, can access the Intel® HD Graphics Control Panel and set different values of sharpness and TCC as pre-processing steps ahead of HDR tone mapping. The changes will take effect in real time as shown in the two examples below.

![Figure 1. Display with sharpness and total color correction set to lower values.](image-url)
Enable the HDR Tuning Feature

This feature is off by default. Enable it by following the steps below:

- Set Register key:
  
  \[HKEY_CURRENT_USER\Software\Intel\Display\DXVA] "VeboxHdrForceVeboxPreProcess" = DWORD:1

- To play HDR content, be sure to use Microsoft Movie & TV app, YouTube or Netflix.
- Make sure HDR is turned on in Windows* OS control panel if using YouTube or Netflix by following the steps listed by Microsoft* here.
- Adjust sharpness or TCC via Intel HD GCP.

Verify the HDR Tuning Feature is Enabled

- Check two report keys if they are set to 1:
  
  \[HKEY_CURRENT_USER\Software\Intel\Display\DXVA\Report] “Vebox IEF pre-process for HDR”
  
  \[HKEY_CURRENT_USER\Software\Intel\Display\DXVA\Report] “Vebox TCC pre-process for HDR”

Note: Enhancements are restricted to only the TCC and sharpness settings. Other video settings will not be applied when this mode is on.

Conclusion

Using the HDR tuning feature to adjust the sharpness or total color correction allows developers to target a specific output style and assist designing the pre-processing settings of input for HDR rendering.