

# Release Notes

DRIVER VERSION: 25.20.100.6323

DATE: October 1<sup>st</sup>, 2018

## HIGHLIGHTS:

- **Windows\* 10 October 2018 Update Launch Driver**
- **HDR for embedded laptop panels Launch Driver**

Loaded with many visual enhancements, this WDDM 2.5 Windows\* 10 October 2018 Update driver introduces brilliant HDR10 on internal displays, enabling full quality HDR10 for video streaming, games, and content creation on both external and laptop displays. Support for Wide Color Gamut has been added for capable displays as well as improvements in EDR quality. This driver also introduces support for the DirectX\* 12 Shader Model 6.3 Compiler and improves hot plug audio synchronization between the Graphics and Audio drivers.

This driver also introduces performance improvements for Microsoft WinML-based applications on 7th Generation Intel® Core processors and higher, by including an initial set of DirectML MetaCommands on supported platforms. These driver optimizations bring a substantial speedup to machine learning and AI-enabled applications that require certain types of convolution or matrix multiply operations.

This driver brings power optimizations to your system to improve battery lifetime, including when the display is in standby. This driver also has performance improvements for Pro Evolution Soccer\* 2019 (DirectX\* 11 version) on 6th Generation Intel® Core processors or higher.

Slam dunk your professional career in [NBA 2K19\\*](#). Exhilarating battles through space await when you hop in your Mech in [Zone of the Enders the 2nd Runner: MvRS\\* Remastered](#), or experience the growing pains of a hospital, as you cure crazy illnesses in [Two Point Hospital\\*](#) enjoyed on Intel® UHD Graphics 620 or better.

Every moment defines the rest of your life – make every decision count; in [Life is Strange\\* 2](#) with Intel® Iris Pro Graphics or better.

**Get a front-row pass to gaming deals, contests, betas, and more with [Intel® Software Gaming Access](#).**

Be sure to check out [gameplay.intel.com](http://gameplay.intel.com), where you'll find recommended game settings for many more of your favorite PC games.

Install the [Intel® Driver & Support Assistant](#) (previously called Intel® Driver Update Utility), which now automatically checks for drivers on a regular basis and can provide notifications when new drivers are available.

This document provides information about Intel's Graphics Driver for:

- 8th Generation Intel® Core processors, related Pentium®/ Celeron® Processors, and Intel® Xeon processors, with Intel® Iris® Plus Graphics 655 and Intel® UHD Graphics 610, 620, 630, P630.
- 7th Generation Intel® Core processors, related Pentium®/ Celeron® Processors, and Intel® Xeon processors, with Intel® Iris® Plus Graphics 640, 650 and Intel® HD Graphics 610, 615, 620, 630, P630.

- 6<sup>th</sup> Generation Intel® Core processors, Intel Core™ M, and related Pentium® processors, with Intel® Iris® Graphics 540, Intel® Iris® Graphics 550, Intel® Iris® Pro Graphics 580, and Intel® HD Graphics 510, 515, 520, 530.
- Intel® Xeon® processor E3-1500M v5 family with Intel® HD Graphics P530
- Pentium®/ Celeron® Processors with Intel® HD Graphics 500, 505 and Intel® UHD Graphics 600, 605
- Pentium®/Celeron® Intel UHD 600, 605

## **CONTENTS OF THE PACKAGE:**

- Intel® Graphics Driver
- Intel® Display Audio Driver (10.26.00.01)
- Intel® Media SDK Runtime
- Intel® OpenCL\* Driver
- Intel® Graphics Control Panel
- Vulkan\* Runtime Installer (1.1.82.1)

## **Operating System Support**

On 8<sup>th</sup> Generation Intel® Core processors, 7<sup>th</sup> Generation Intel® Core processors, 6<sup>th</sup> Generation Intel® Core and Intel® Mobile Xeon processors and related Pentium/Celeron:

- Microsoft Windows® 10 64-bit

## **NEW FEATURES:**

Enables full quality HDR10 in embedded laptop displays
HDR and EDR enhancements for external and laptop displays
Support for Wide Color Gamut Displays
WinML performance optimizations
Support for DirectX* 12 Shader Model 6.3 Compiler
Improves hot plug audio synchronization between the Graphics and Audio drivers
Performance improvements and optimizations for Pro Evolution Soccer* 2019 on 6 <sup>th</sup> Generation Intel® Core processors or higher
Memory Optimizations in Vulkan*
Improved color quality during video playback and battery lifetime when display is in standby
Security fixes and improvements

## **KEY ISSUES FIXED:**

Minor Graphics anomalies may be observed in Phantasy Star Online 2*
Intermittent crashes or hangs may occur in Wolfenstein II: The New Colossus (Vulkan*), Adobe Premiere Pro* CC 2019 (OpenCL*)
Checkmark indicating 'optimization' not updating correctly in the Intel Control Panel Gaming page
Panel Self Refresh remains disabled after full-screen video playback, which may impact battery life
Intermittent display flickering when display is idle on certain multi-refresh rate panels

Miracast display may not go full-screen in some systems

A Virtual Machine session may go blank when running some 3D benchmarks and YouTube\* sessions, or if Graphics acceleration enabled, if using a Windows\* 10 October 2018 Update (RS5\*) driver

## SUPPORTED PRODUCTS:

### HARDWARE

All platforms with the following configurations are supported:

Intel® Graphics <sup>1</sup>	DirectX* <sup>2</sup>	OpenGL*	OpenCL*	Vulkan*	<a href="#">Intel® Quick Sync Video</a>
8 <sup>th</sup> Generation Intel® Core™ processors with Intel® Iris® Plus Graphics 655	12	4.5	2.1	1.1.83	Yes
8 <sup>th</sup> Generation Intel® Core™ processors with Intel® UHD Graphics 610/620/630/P630	12	4.5	2.1	1.1.83	Yes
7 <sup>th</sup> Generation Intel® Core™ processors with Intel® Iris® Plus Graphics 640/650	12	4.5	2.1	1.1.83	Yes
7 <sup>th</sup> Generation Intel® Core™ processors with Intel® HD Graphics 610/615/620/630	12	4.5	2.1	1.1.83	Yes
Intel® Xeon® processor E3-1500M v5 family with Intel® HD Graphics P630	12	4.5	2.1	1.1.83	Yes
Pentium Processors with Intel® HD Graphics 610	12	4.5	2.1	1.1.83	Yes
6 <sup>th</sup> Generation Intel® Core™ processors with Intel® Iris® Pro Graphics 580	12	4.5	2.0	1.1.83	Yes
6 <sup>th</sup> Generation Intel® Core™ processors with Intel® Iris® Graphics 540/550	12	4.5	2.0	1.1.83	Yes
6 <sup>th</sup> Generation Intel® Core™ processors with Intel® HD Graphics 520/530	12	4.5	2.0	1.1.83	Yes
Intel® Xeon® processor E3-1500M v5 family with Intel® HD Graphics P530	12	4.5	2.0	1.1.83	Yes
Intel® Xeon® processor E3-1500M v5 family with Intel® Iris Pro Graphics P580	12	4.5	2.0	1.1.83	Yes
Intel® Core™ M processors with Intel® HD Graphics 515	12	4.5	2.0	1.1.83	Yes
Pentium® and Celeron® Processors with Intel® HD Graphics 500/505/510	12	4.5	1.2	1.1.83	Yes
Pentium® and Celeron® Processors with Intel® UHD Graphics 600/605	12	4.5	1.2	1.1.83	Yes

Note:

1. If you are uncertain of which Intel® processor is in your computer, Intel® recommends using the [Intel Processor Identification Utility](#) or Install the [Intel® Driver & Support Assistant](#) (previously called Intel® Driver Update Utility) to identify your Intel® processor.
2. In the Intel® Iris®, UHD, and HD Graphics Control Panel (under Options > Options menu > Information Center), the 'Installed DirectX\* version' refers to the operating system's DirectX version. The Information Center's 'Supported DirectX\* Version' refers to the Intel® Graphics Driver's supported DirectX version. The DirectX 12 API is supported but some optional features may not be available. Applications using the DirectX 12 API should query for feature

support before using specific hardware features. Please note that DirectX12 is only supported on Windows 10<sup>®</sup> and DirectX11.3 support is also available on supported Microsoft\* operating systems.

## KNOWN ISSUES

- Intermittent crashes or hangs may occur in Forza Motorsport\* 7
- Windows Advanced Display Settings may show incorrect bit-depth on some primary monitors which leads to inaccurate colors.
- With Windows\* 10 October 2018, when recovering from hibernate, Amazon Prime video playback may become choppy and have audio corruption.
- When upgrading to Windows\* 10 October 2018, some installs may fail due to an Intel<sup>®</sup> audio driver

## More on Intel<sup>®</sup> Core™ processors

For more information on the Intel<sup>®</sup> Core™ processor family, Intel<sup>®</sup> Xeon<sup>®</sup> processor E3 family, and 8<sup>th</sup> Generation Intel<sup>®</sup> Core processors, please visit:

### [Intel<sup>®</sup> 8<sup>th</sup> Generation Core Processors](#)

<http://www.intel.com/content/www/us/en/processors/core/core-processor-family.html>

<http://www.intel.com/content/www/us/en/processors/xeon/xeon-processor-e3-family.html>

<http://www.intel.com/graphics>

*Work and play in high resolution with Intel<sup>®</sup> UHD Graphics, Iris<sup>®</sup> Graphics, Iris<sup>®</sup> Plus Graphics, and Iris<sup>®</sup> Pro Graphics. Watch captivating 4K Ultra HD (UHD) video on up to three screens, edit photos and videos like a pro, and immerse yourself in vividly rendered, seamless 3D gameplay - all with the added power boost of an Intel<sup>®</sup> Core™ processor. Intel<sup>®</sup> Graphics bring stunning visuals to thinner and lighter portable devices, like laptops, 2 in 1s, and desktop computers.*

We continuously strive to improve the quality of our products to better serve our users and appreciate [feedback](#) on any issues you discover and suggestions for future driver releases. If you have an issue to submit, **please follow the guidance found here** [Default level information for reporting Graphics issues](#).

\*Other names and brands may be claimed as the property of others.