

Release Notes

DRIVER VERSION: 26.20.100.6861

DATE: May 15th, 2019

HIGHLIGHTS:

Launch driver for:

- [A Plague Tale: Innocence](#)*
- [Total War: Three Kingdoms](#)*
- [Conan Unconquered](#)*

GAMING HIGHLIGHTS:

Dive into the medieval era this month, with intricate swordsmanship battles in [Mordhau](#)*, or relive the horrors of the time in [A Plague Tale: Innocence](#)*. Real-time strategy fans have a chance to double dip in the action, right on the release days of [Total War: Three Kingdoms](#)* and [Conan Unconquered](#)*, all on Intel® UHD Graphics 620 or better.

Be sure to check out gameplay.intel.com, where you'll find recommended in-game settings for your Intel® Graphics system for many more of your favorite games.

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

DEVELOPER HIGHLIGHTS:

- Support for OpenGL 4.6 API
- Various additions to D3D12 MetaCommand support in DirectML.
- The Intel® Graphics Control Panel SDK now allows for control of Local Adaptive Contrast Enhancement (LACE) sensitivity (low/med/high) on platforms where available
- New Vulkan extensions
 - VK_EXT_depth_clip_enable : allows the explicitly control depth clipping operation
 - VK_EXT_host_query_reset : adds a new function to reset queries from the host
 - VK_EXT_scalar_block_layout : enables C-like structure layout for SPIR-V blocks
 - VK_KHR_shader_float16_int8 : allows use of 16-bit floating-point types and 8-bit integer types in shaders for arithmetic operations

PERFORMANCE IMPROVEMENTS:

- Improved performance and image quality when Conservative Morphological Anti-Aliasing (CMAA) is enabled for DX12 games and 3D applications.
- Reduced compilation time on OpenCL shaders
- Playability improvements and performance optimizations for [Total War: Three Kingdoms](#)*, [Totally Accurate Battle Simulator](#)*, and [Risk of Rain 2](#)*

KEY ISSUES FIXED:

NOTE: This driver contains stability and security improvements.

- Intermittent crashes or hangs may occur in [World War Z](#)* (Vulkan), [World of Warships](#)*, Maxon Cinema 4D*
- Minor graphics anomalies may be observed in [Apex Legends](#)* (low settings with TSAA disabled on 6th generation Intel® Core Processors only), [Generation Zero](#)*, [Imperator Rome](#)*, [Devotion](#)* (when anti-aliasing enabled), Maxon Cinema 4D*, Creo View* while hovering mouse over objects
- Content protection may be disabled when hotplugging a display by DisplayPort, in connected standby mode, with monitors turned off
- A display hotplugged to a type-c DisplayPort hub may not be detected
- Video output may not update while changing the input range from 'Full' to 'Limited' in the Intel® Graphics Command Center
- Miracast display may show black screen when connected over an HDCP 2.3 dongle
- Intermittent hangs may occur when using Media SDK to encode MPEG2 on 7th Generation Intel® Core processors or higher
- Anisotropic filtering and CMAA Anti-aliasing settings may not apply to games and 3D applications in Intel Graphics Command Center (IGCC)

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

- 9th Generation Intel® Core processors, related Pentium®/Celeron® Processors, and Intel® Xeon processors, with Intel® UHD Graphics 630.
- 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.
- 6th 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® Audio Driver 10.26.0.7 (6th Gen and related Pentium® Silver and Celeron® processors)
- Intel® Audio Driver 10.27.0.3 (7th, 8th, 9th Gen)
- Intel® Media SDK Runtime
- Intel® OpenCL* Driver
- Intel® Graphics Command Center
- Vulkan* Runtime Installer (1.1.101.0)

OPERATING SYSTEM SUPPORT:

On 9th Generation Intel® Core processors, 8th Generation Intel® Core processors, 7th Generation Intel® Core processors, 6th Generation Intel® Core and Intel® Mobile Xeon processors and related Pentium/Celeron:

- Microsoft Windows* 10-64 - Fall Creators Update (1709)
- Microsoft Windows* 10-64 - April 2018 Update (1803)
- Microsoft Windows* 10-64 - October 2018 Update (1809)
- Microsoft Windows* 10-64 – May 2019 Update (1903)

KNOWN ISSUES:

- Minor graphics anomalies may be observed in Devil May Cry 5* (DX12) and Tom Clancy's The Division 2* (DX12).

- Intermittent crashes or hangs may be seen in Sniper Elite V2 Remastered*, Rage 2* (Vulkan) and Tom Clancy's The Division 2*

SUPPORTED PRODUCTS:

HARDWARE

All platforms with the following configurations are supported:

Intel® Graphics ¹	DirectX ^{*2}	OpenGL*	OpenCL*	Vulkan*	Intel® Quick Sync Video
9 th Generation Intel® Core™ processors with Intel® UHD Graphics 630	12	4.6	2.1	1.1.103	Yes
8 th Generation Intel® Core™ processors with Intel® Iris® Plus Graphics 655	12	4.6	2.1	1.1.103	Yes
8 th Generation Intel® Core™ processors with Intel® UHD Graphics 610/620/630/P630	12	4.6	2.1	1.1.103	Yes
7 th Generation Intel® Core™ processors with Intel® Iris® Plus Graphics 640/650	12	4.6	2.1	1.1.103	Yes
7 th Generation Intel® Core™ processors with Intel® HD Graphics 610/615/620/630	12	4.6	2.1	1.1.103	Yes
Intel® Xeon® processor E3-1500M v5 family with Intel® HD Graphics P630	12	4.6	2.1	1.1.103	Yes
Pentium Processors with Intel® HD Graphics 610	12	4.6	2.1	1.1.103	Yes
6 th Generation Intel® Core™ processors with Intel® Iris® Pro Graphics 580	12	4.6	2.0	1.1.103	Yes
6 th Generation Intel® Core™ processors with Intel® Iris® Graphics 540/550	12	4.6	2.0	1.1.103	Yes
6 th Generation Intel® Core™ processors with Intel® HD Graphics 520/530	12	4.6	2.0	1.1.103	Yes
Intel® Xeon® processor E3-1500M v5 family with Intel® HD Graphics P530	12	4.6	2.0	1.1.103	Yes
Intel® Xeon® processor E3-1500M v5 family with Intel® Iris Pro Graphics P580	12	4.6	2.0	1.1.103	Yes
Intel® Core™ M processors with Intel® HD Graphics 515	12	4.6	2.0	1.1.103	Yes
Pentium® and Celeron® Processors with Intel® HD Graphics 500/505/510	12	4.6	1.2	1.1.103	Yes
Pentium® and Celeron® Processors with Intel® UHD Graphics 600/605	12	4.6	1.2	1.1.103	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® Graphics Command Center (System > Driver), the 'Microsoft DirectX*' version refers to the operating system's 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® and DirectX11.3 support is also available on supported Microsoft* operating systems.

More on Intel® Core™ Processors

For more information on the Intel® Core™ processor family, Intel® Xeon® processor E3 family, and 9th Generation Intel® Core processors, please visit:

[Intel® 9th 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® UHD Graphics, Iris® Graphics, Iris® Plus Graphics, and Iris® 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® Core™ processor. Intel® 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.