Release Notes

DRIVER VERSION: 26.20.100.7158

DATE: September 5, 2019

HIGHLIGHTS:

Launch driver for:

- **eFootball Pro Evolution Soccer 2020***
- **Borderlands 3***
- **Greedfall***
- 10th Gen Intel Core processors with UHD Graphics ("Comet Lake")

GAMING HIGHLIGHTS:

Gear up for **eFootball Pro Evolution Soccer 2020***, the latest installment in the long-running Pro Evolution Soccer series, immerse yourself in the magical world of **Greedfall*** and experience **Children of Morta*** on Intel® UHD Graphics 620 or better.

Enjoy three classics beautifully remastered in the **Spyro™ Reignited Trilogy*** and battle hordes of enemies **Pagan Online*** on Intel® Iris Pro graphics or better.

Also, get ready for **Borderlands 3***, the latest installment in the critically acclaimed FPS-looter series 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:

- Enabled reporting support for the following OpenGL 4.6 SPIR-V extensions:
    - SPV_KHR_shader_ballot
    - SPV_KHR_shader_draw_parameters
    - SPV_KHR_storage_buffer_storage_class
    - SPV_KHR_subgroup_vote
- Enabled the following Vulkan extensions:
    - VK_EXT_fragment_shader_interlock
    - VK_EXT_buffer_device address
    - VK_EXT_separate_stencil_usage

- VK_KHR_uniform_buffer_standard_layout

IMPROVEMENTS:

- Performance optimizations for **Age of Wonders: Planetfall***.
- OpenCL optimizations.
- More efficient content protection.

KEY ISSUES FIXED:

NOTE: This driver contains stability and security improvements.

- Minor graphics anomalies may be observed in SolidWorks 2019*.
- Intermittent crashes or hangs may be observed in **Stormworks: Build and Rescue***, **Madden NFL19***, CRYENGINE 5.5 GameSDK and Mastercam.
- Scaling would use medium filter instead of bilinear filtering.
- Ghosting effect upon refresh rate change with panel self-refresh enabled.
- Inconsistent brightness when internal HDR panels are turned on.
- Windows Game Bar (Win+G) could not record in **Call of Duty: Black Ops 3***, **Civilization VI*** and **Path of Exile***.
- When contrast enhancement is enabled in the video page, corruption could be observed in H.265/HEVC video playback.

This document provides information about Intel® Graphics Driver for:

- 10th Generation Intel Core processors ("Comet Lake") with Intel UHD Graphics.
- 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, 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.

CONTENTS OF THE PACKAGE:

- Intel Graphics Driver
- Intel® Audio Driver 10.26.0.8 (6th Gen and related Pentium Silver and Celeron processors)
- Intel Audio Driver 10.27.0.5 (7th, 8th, 9th, 10th Gen and related Pentium Silver and Celeron processors)
- Intel® Media SDK Runtime
- Intel® Graphics Compute Runtime for OpenCL™ Driver
- Intel® Graphics Command Center
- Vulkan* Runtime Installer (1.1.108.0)

OPERATING SYSTEM SUPPORT:

On 10th Generation Intel Core ("Comet Lake"), 9th Generation Intel Core, 8th Generation Intel Core, 7th Generation Intel Core, and 6th Generation Intel Core processors, Intel Xeon processors for mobile workstations and related Pentium/Celeron processors:

- 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 **Arma 3**.
- Some games may not have audio when using Intel Display Audio in full screen mode when the resolution is different than what is set in Windows or Intel Graphics Command Center.
- Intermittent crash or hang may be observed when resizing Ultra-HD Blu-Ray PowerDVD playback on an external monitor from full-screen mode to windowed mode.

SUPPORTED PRODUCTS:

HARDWARE

All platforms with the following configurations are supported:

Intel Graphics[1]	DirectX*[2]	OpenGL*	OpenCL	Vulkan*	Intel® Quick Sync Video
10th Generation Intel Core processors with Intel UHD Graphics ("Comet Lake")	12	4.6	2.1	1.1.114	Yes
9th Generation Intel Core processors with Intel UHD Graphics 630	12	4.6	2.1	1.1.114	Yes
8th Generation Intel Core processors with Intel Iris Plus Graphics 655	12	4.6	2.1	1.1.114	Yes
8th Generation Intel Core processors with Intel UHD Graphics 610/620/630/P630	12	4.6	2.1	1.1.114	Yes
7th Generation Intel Core processors with Intel Iris Plus Graphics 640/650	12	4.6	2.1	1.1.114	Yes
7th Generation Intel Core processors with Intel HD Graphics 610/615/620/630	12	4.6	2.1	1.1.114	Yes
Intel Xeon processor E3-1500M v5 family with Intel HD Graphics P630	12	4.6	2.1	1.1.114	Yes
Pentium Processors with Intel HD Graphics 610	12	4.6	2.1	1.1.114	Yes
6th Generation Intel Core processors with Intel Iris Pro Graphics 580	12	4.6	2.0	1.1.114	Yes
6th Generation Intel Core processors with Intel Iris Graphics 540/550	12	4.6	2.0	1.1.114	Yes
6th Generation Intel Core processors with Intel HD Graphics 520/530	12	4.6	2.0	1.1.114	Yes
Intel Xeon processor E3-1500M v5 family with Intel HD Graphics P530	12	4.6	2.0	1.1.114	Yes
Intel Xeon processor E3-1500M v5 family with Intel Iris Pro Graphics P580	12	4.6	2.0	1.1.114	Yes
Intel Core M processors with Intel HD Graphics 515	12	4.6	2.0	1.1.114	Yes
Pentium and Celeron processors with Intel HD Graphics 500/505/510	12	4.6	1.2	1.1.114	Yes

Pentium and Celeron processors with Intel UHD Graphics 600/605	12	4.6	1.2	1.1.114	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.
3. Intel® Labs conducts independent testing of supported titles on Intel® platforms to ensure playability. Please refer to publisher system requirements to ensure compatibility with your system.

More on Intel Core Processors

For more information on the Intel Core processor family, Intel Xeon E processor family, and 10th Generation Intel Core processors, please visit:

[Intel 10th 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, Intel Iris Graphics, Intel Iris Plus Graphics, and Intel 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.](#)

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