# **Release Notes**

DRIVER VERSION: 15.46.05.4771 (Windows Driver Store Version 22.20.16.4771)

DATE: August 25, 2017

## **SUMMARY:**

- Quake Champions\* (Early Access) Launch Driver
- StarCraft Remastered\* Launch Driver
- Life is Strange: Before the Storm\* Launch Driver

Intel's latest graphics driver release supports Intel's<sup>®</sup> newest <u>8<sup>th</sup> Generation Core Processors</u>, introducing Intel<sup>®</sup> UHD Graphics, with the ability to immerse you in leading-edge 4K UHD entertainment from your laptop for up to 10 hours. Along with several security fixes, this driver also optimizes system idle state to reduce power consumption.

Relive the Terran\* vs. Protoss\* vs. Zerg\* battles of old, in <u>StarCraft Remastered\*</u> enjoyed in up to stunning 4K UHD. Obliterate enemies in <u>Quake Champions\* (Early Access)</u>, or embark on an adventure at release of the latest games, <u>Life</u> <u>is Strange: Before the Storm\*</u>, <u>Batman: The Enemy Within – The Telltale Series\*</u>, <u>Crossout\*</u>, <u>The Long Dark\*</u>, and <u>Slime</u> <u>Rancher\*</u> on processors with Intel® HD Graphics 620 or better.

Emerge victorious or blaze past the finish line on the latest titles like <u>Lawbreakers\*</u>, <u>Tacoma\*</u>, and <u>F1 2017\*</u> on Intel<sup>®</sup> Iris<sup>™</sup> Pro Graphics.

Check out the all new look and feel of <u>gameplay.intel.com</u>, where you'll find recommended game settings for many of your favorite PC games.

Install the <u>Intel Driver Update Utility</u>, 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<sup>®</sup> Core processors with Intel<sup>®</sup> UHD Graphics 620.
- 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<sup>®</sup> Core processors, Intel Core<sup>™</sup> M, and related Pentium<sup>®</sup> processors, with Intel<sup>®</sup> Iris<sup>™</sup> Graphics 540, Intel<sup>®</sup> Iris<sup>™</sup> Graphics 550, Intel<sup>®</sup> Iris<sup>™</sup> Pro Graphics 580, and Intel<sup>®</sup> HD Graphics 510, 515, 520, 530.
- Intel<sup>®</sup> Xeon<sup>®</sup> processor E3-1500M v5 family with Intel<sup>®</sup> HD Graphics P530
- Pentium<sup>®</sup>/ Celeron<sup>®</sup> Processors with Intel<sup>®</sup> HD Graphics 500, 505

# **CONTENTS OF THE PACKAGE:**

- Intel<sup>®</sup> Graphics Driver
- Intel<sup>®</sup> Display Audio Driver
- Intel<sup>®</sup> Media SDK Runtime
- Intel<sup>®</sup> OpenCL\* Driver
- Intel<sup>®</sup> Graphics Control Panel

• Vulkan\* Runtime Installer

#### **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<sup>®</sup> 64-bit

## **NEW FEATURES:**

Enabled Dynamic OLED

Performance Optimizations in OpenGL\* & OpenCL\*

Improved CMAA (Conservative Morphological Anti-Aliasing) performance for Virtual Reality workloads

Vulkan\* Runtime Loader updated to version 1.0.54.1

Enabled OpenGL hardware acceleration when running Miracast or DisplayLink.

## **KEY ISSUES FIXED:**

Graphical anomalies may be observed in Tom Clancy's The Division™, DayZ\*, DOTA 2\* (OpenGL\*) and other games

Intermittent crashes or hangs may be observed in Tom Clancy's The Division<sup>™</sup>, Batman – The Telltale Series\*, and other games

Vulkan:

- Functional issues in DOTA 2\* and the Unity Engine\* on Vulkan
- Intermittent crashes in vkQuake

In extended display mode, HDCP may not work after video standby when using a type-C to HDMI adapter

Improved stability on External DisplayPort and Wireless Display Monitors

Stability improvements in WebGL\*

Menu bars may not appear in HDR Expose 3\*

## **SUPPORTED PRODUCTS:**

#### HARDWARE

All platforms with the following configurations are supported:

Intel <sup>®</sup> Graphics <sup>1</sup>	DirectX* <sup>2</sup>	OpenGL*	OpenCL*	Vulkan*	<u>Intel® Quick</u> <u>Sync Video</u>
8th Generation Intel® Core™ processors with Intel® UHD Graphics 620	12	4.5	2.1	1.0.38	Yes
7th Generation Intel® Core™ processors with Intel® Iris™ Plus Graphics 640/650	12	4.5	2.1	1.0.38	Yes
7th Generation Intel® Core™ processors with Intel® HD Graphics 610/615/620/630	12	4.5	2.1	1.0.38	Yes

Intel® Xeon® processor E3-1500M v5 family with Intel® HD Graphics P630	12	4.5	2.1	1.0.38	Yes
Pentium Processors with Intel <sup>®</sup> HD Graphics 610	12	4.5	2.1	1.0.38	Yes
6th Generation Intel® Core™ processors with Intel® Iris™ Pro Graphics 580	12	4.5	2.0	1.0.38	Yes
6th Generation Intel® Core™ processors with Intel® Iris™ Graphics 540/550	12	4.5	2.0	1.0.38	Yes
6th Generation Intel® Core™ processors with Intel® HD Graphics 520/530	12	4.5	2.0	1.0.38	Yes
Intel® Xeon® processor E3-1500M v5 family with Intel® HD Graphics P530	12	4.5	2.0	1.0.38	Yes
Intel® Xeon® processor E3-1500M v5 family with Intel® Iris Pro Graphics P580	12	4.5	2.0	1.0.38	Yes
Intel® Core™ M processors with Intel® HD Graphics 515	12	4.5	2.0	1.0.38	Yes
Pentium <sup>®</sup> and Celeron <sup>®</sup> Processors with Intel <sup>®</sup> HD Graphics 500/505	12	4.5	1.2	1.0.38	Yes
Pentium Processors with Intel® HD Graphics 510	12	4.5	1.2	1.0.38	Yes

Note:

- 1. If you are uncertain of which Intel processor is in your computer, Intel recommends using the <u>Intel Processor</u> <u>Identification Utility</u> or <u>Intel Driver Update Utility</u> to identify your Intel processor.
- 2. In the Intel® Iris™ 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 and DirectX11.3 support is also available on supported Microsoft\* operating systems.

#### **KNOWN ISSUES**

- Graphics anomalies may be observed in Assassin's Creed<sup>®</sup> Syndicate, Titanfall<sup>®</sup> 2, Bulletstorm\*: Full Clip Edition, Ballistic Overkill\* 1.3.7 (Vulkan\*)
- Intermittent crashes or hangs may occur in The Surge\*, or during playback of 3D video
- Display may lose rotation after going fullscreen on an external monitor with some DirectX9\* applications
- Bezel value may not correctly increment/decrement when using bezel correction in collage mode

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

For more information on the Intel<sup>®</sup> Core<sup>™</sup> 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® 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<sup>®</sup> Core<sup>™</sup> 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 <u>feedback</u> on any issues you discover and suggestions for future driver releases. If you have an issue to submit, **please follow the guidance found here** <u>Default level information for reporting Graphics issues</u>.

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