

Release Notes

DRIVER VERSION: 27.20.100.8581 BETA

DATE: July 29, 2020

This BETA driver adds support for the Vulkan^{*3} extension `VK_EXT_pipeline_creation_cache_control` - This Khronos^{*} extension adds flags to `Vk*PipelineCreateInfo` and `VkPipelineCacheCreateInfo` structures with the goal of providing information about potentially expensive hazards within the client driver during pipeline creation to the application before carrying them out rather than after.

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^{*2} Are you still experiencing an error preventing the driver update? Look here for [why and a solution](#).

KEY ISSUES FIXED:

- Intermittent crash or hang seen in Red Dead Redemption 2* (Vulkan), Cities Skylines, FIFA20 (when switching between windowed and full screen) on 10th Generation Intel Core processors with Intel Iris Plus graphics.
- Minor graphics anomalies may be observed in Tom Clancy's The Division 2* (DX12), Rise of the Tomb Raider* (DX12).

This document provides information about Intel Graphics Driver for:

- 10th Generation Intel Core processors with Intel Iris Plus graphics and 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 10.26.0.9 (6th Gen and related Pentium Silver and Celeron processors)
- Intel Audio Driver 10.27.0.9 (7th, 8th, 9th, 10th Gen)
- Intel Audio Driver 11.1.0.16 (10th Gen with Iris Plus Graphics)
- Intel Media SDK Runtime (10.0.0.016)
- Intel Graphics Compute Runtime for OpenCL™ Driver
- Intel Graphics Command Center
- Vulkan*³ Runtime Installer
- Intel Graphics Installer (1.7.108)
- OneAPI Level Zero Loader and Validation Layer
- Intel® Graphics Compute Runtime for OneAPI Level Zero specification

Note^{*i}

The OneAPI Level Zero Loader relies upon a registry entry to find the path to the Intel® Graphics Compute Runtime driver, which is configured during installation.

A standalone OneAPI Level Zero SDK is not yet available, but the necessary headers and libraries can be downloaded and built from: <https://github.com/oneapi-src/level-zero>

- OneAPI Specification: <https://spec.oneapi.com/versions/latest/introduction.html>
- OneAPI Level Zero Specification: <https://spec.oneapi.com/versions/latest/oneLO/index.html>

OPERATING SYSTEM SUPPORT:

On 10th Generation Intel Core, 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)
- Microsoft Windows 10-64 – November 2019 Update (1909)
- Microsoft Windows 10-64 – May 2020 Update (2004)

SUPPORTED PRODUCTS:

HARDWARE

All platforms with the following configurations are supported:

Intel Graphics ¹	DirectX*4	OpenGL*	OpenCL	Vulkan*	Intel Quick Sync Video
10 th Generation Intel Core processors with Intel Iris Plus Graphics	12	4.6	2.1	1..2	Yes
10 th Generation Intel Core processors with Intel UHD Graphics	12	4.6	2.1	1.2	Yes
9 th Generation Intel Core processors with Intel UHD Graphics 630	12	4.6	2.1	1.2	Yes
8 th Generation Intel Core processors with Intel Iris Plus Graphics 655	12	4.6	2.1	1.2	Yes
8 th Generation Intel Core processors with Intel UHD Graphics 610/620/630/P630	12	4.6	2.1	1.2	Yes
7 th Generation Intel Core processors with Intel Iris Plus Graphics 640/650	12	4.6	2.1	1.2	Yes
7 th Generation Intel Core processors with Intel HD Graphics 610/615/620/630	12	4.6	2.1	1.2	Yes
Intel Xeon processor E3-1500M v5 family with Intel HD Graphics P630	12	4.6	2.1	1.2	Yes
Pentium Processors with Intel HD Graphics 610	12	4.6	2.1	1.2	Yes
6 th Generation Intel Core processors with Intel Iris Pro Graphics 580	12	4.6	2.0	1.2	Yes
6 th Generation Intel Core processors with Intel Iris Graphics 540/550	12	4.6	2.0	1.2	Yes
6 th Generation Intel Core processors with Intel HD Graphics 520/530	12	4.6	2.0	1.2	Yes
Intel Xeon processor E3-1500M v5 family with Intel HD Graphics P530	12	4.6	2.0	1.2	Yes
Intel Xeon processor E3-1500M v5 family with Intel Iris Pro Graphics P580	12	4.6	2.0	1.2	Yes
Intel Core M processors with Intel HD Graphics 515	12	4.6	2.0	1.2	Yes
Pentium and Celeron processors with Intel HD Graphics 500/505/510	12	4.6	1.2	1.2	Yes
Pentium and Celeron processors with Intel UHD Graphics 600/605	12	4.6	1.2	1.2	Yes

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.

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.

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.

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

*¹ 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.

² Graphics Driver Smart Installer Enhancement allows end-users to upgrade systems with OEM DCH drivers to newer Intel generic DCH drivers. OEM customizations are preserved during this upgrade process, in accordance with Microsoft DCH driver design principles (refer to Microsoft documentation, "Extension INF Publishing Whitepaper" to learn more). The installer will continue to restrict OEM non-DCH to Intel Generic non-DCH upgrades as well as OEM non-DCH to Intel Generic DCH driver upgrades. End-users will continue to be referred to OEM websites.

WARNING: Installing this Intel generic graphics driver will overwrite your Computer Manufacturer (OEM) customized driver. OEM drivers are handpicked, customized, and validated to resolve platform-specific issues, enable features and enhancements, and improve system stability. The generic driver's intention is to temporarily test new features, game enhancements, or check if an issue is resolved. Once testing is complete Intel advises reinstalling the OEM driver until they validate it and release their own version.

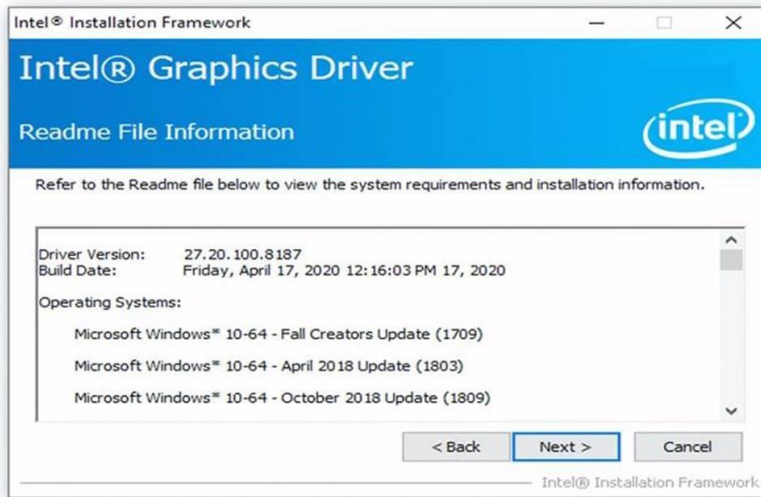
Any graphics issues found using Intel generic graphics drivers should be [reported directly to Intel](#). Corporate customers should always use OEM drivers and report all issues through the vendor they purchased the platforms and support through.

³ Product is conformant with the Vulkan 1.2 specification. Vulkan* and the Vulkan* logo are registered trademarks of the Khronos Group Inc*.

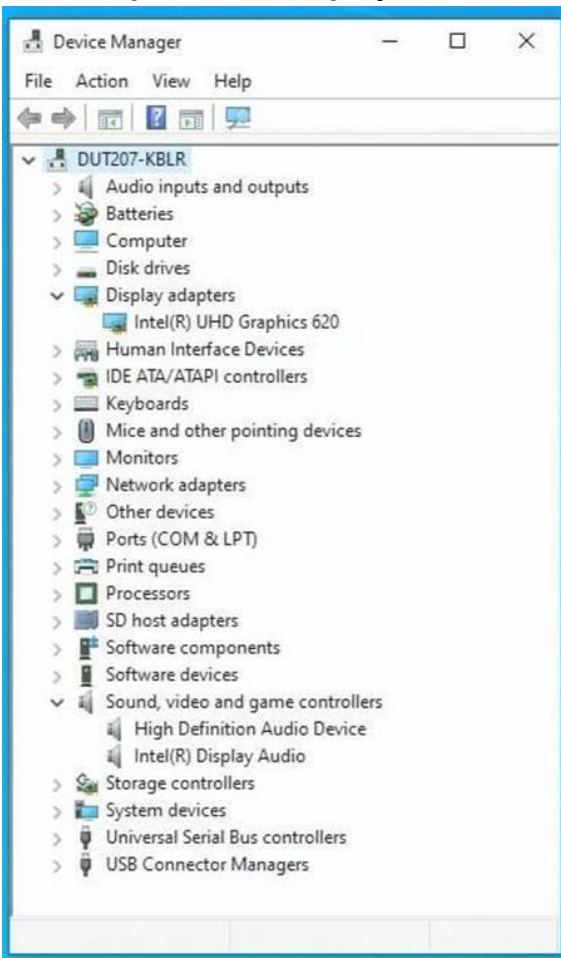
⁴ In the Intel Graphics Command Center (System > Driver), the 'Microsoft DirectX version refers to the operating system's DirectX version. The DirectX 12 API is supported but some optional features may not be available. Applications using the DirectX 12 API should query for feature support before using 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.

*5 Starting with driver 27.20.100.8190, there will no longer be an Intel Graphics Driver entry in Add or Remove Programs as recommended by Microsoft. Additionally, Graphics and Audio drivers must be uninstalled separately and only from Device Manager, as shown in the screenshots below.

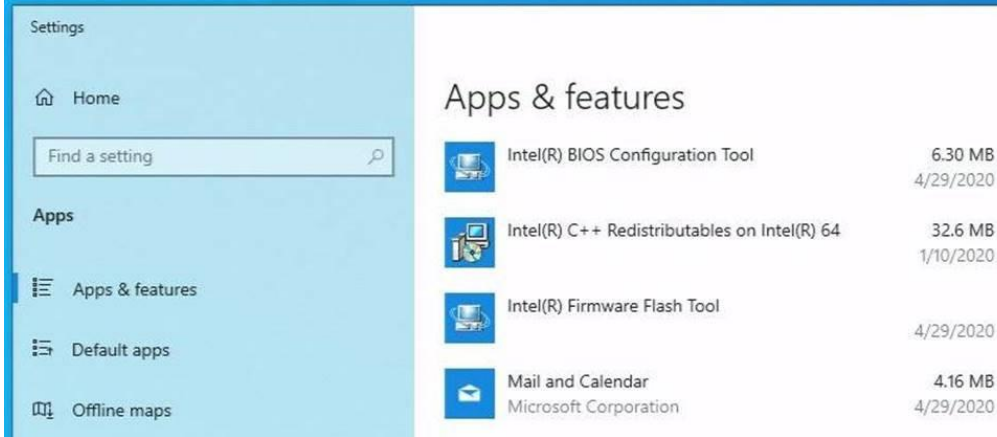
Installation Process



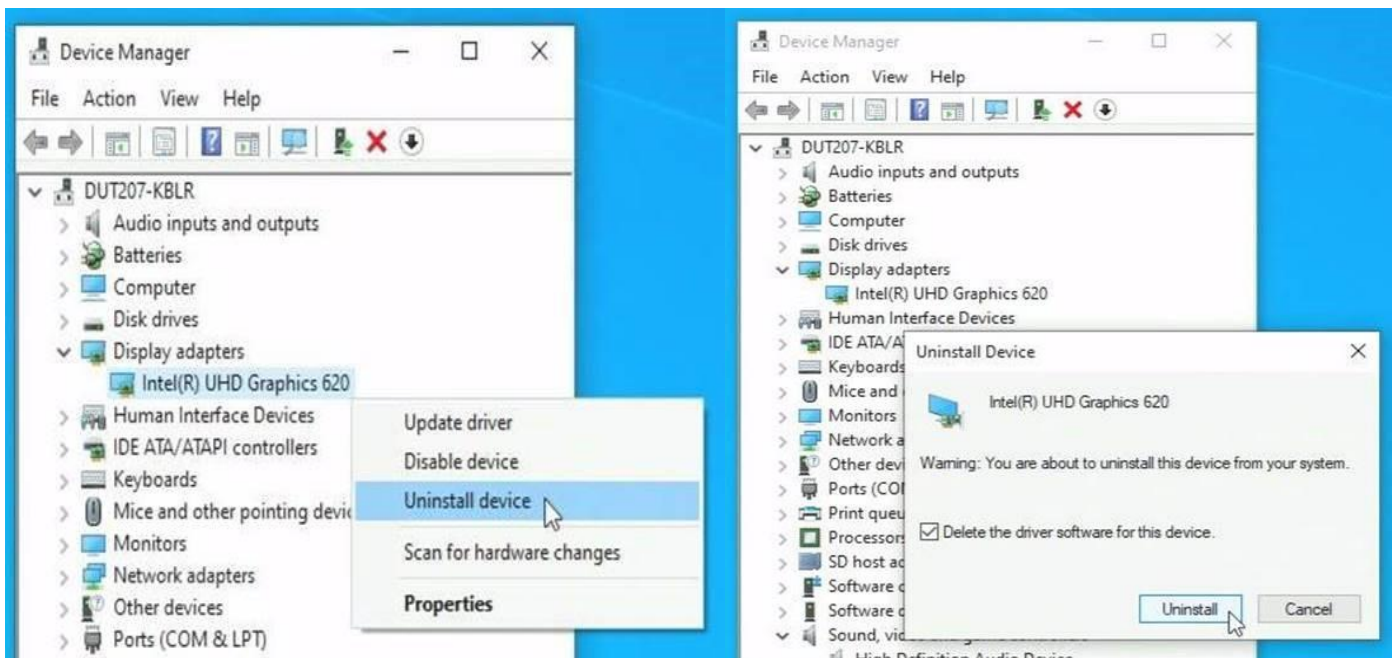
Intel Graphics and Display Audio Drivers Installed



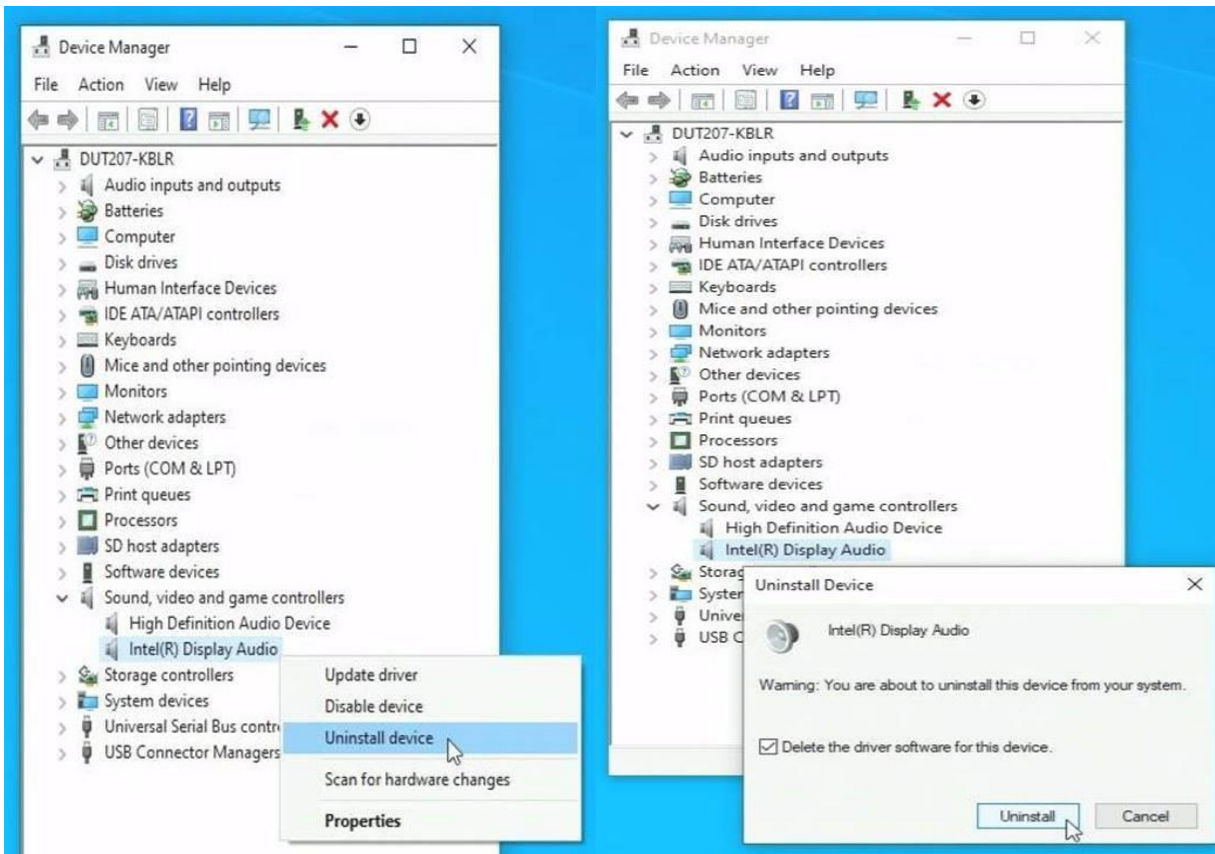
Intel Graphics drivers from 27.20.100.8190 do not create "Add or remove programs" entry



Uninstalling Intel Graphics Driver



Uninstalling Intel Display Audio Driver



Intel Graphics and Display Audio Drivers Uninstalled

