

# Release Notes



**DRIVER VERSION: 31.0.101.5186 WHQL and 31.0.101.5234 WHQL**

**DATE: January 24, 2024**

Intel® Graphics Driver package size has temporarily increased because of the inclusion of Intel® Core™ Ultra with Intel® Arc™ Graphics and Intel® Graphics driver.

## GAMING HIGHLIGHTS:

Intel® Game On Driver support on Intel® Arc™ A-series Graphics for:

- **Enshrouded\***
- **Suicide Squad: Kill the Justice League\***
- **Like a Dragon: Infinite Wealth\***
- **Tekken 8\***
- **Palworld\***

Intel® Game On Driver support on Intel® Core™ Ultra with Intel® Arc™ Graphics for:

- **Like a Dragon: Infinite Wealth\***
- **Tekken 8\***
- **Palworld\***

Game performance improvements on Intel® Arc™ A-Series Graphics Products versus Intel® 31.0.101.5085 software driver for:

- Albion Online\* (DX11)<sup>9</sup>
  - Up to 11% average FPS uplift at 1080p with Ultra settings
- Anno 1800\* (DX11)<sup>9</sup>
  - Up to 33% average FPS uplift at 1080p with Ultra High settings
- Apex Legends\* (DX11)<sup>9</sup>
  - Up to 26% average FPS uplift at 1080p with Ultra settings
- Assassin's Creed Syndicate\* (DX11)<sup>9</sup>
  - Up to 13% average FPS uplift at 1080p with Ultra High settings
- Black Desert Online\* (DX11)<sup>9</sup>
  - Up to 18% average FPS uplift at 1080p with Ultra settings
- Elder Scrolls Online\* (DX11)<sup>9</sup>
  - Up to 10% average FPS uplift at 4K with Ultra settings
- Elex II\* (DX11)<sup>9</sup>
  - Up to 101% average FPS uplift at 1080p with Ultra settings
- Humankind\* (DX11)<sup>9</sup>
  - Up to 11% average FPS uplift at 1080p with Fantastic settings
- Hunt: Showdown\* (DX11)<sup>9</sup>
  - Up to 27% average FPS uplift at 1080p with High settings
- Just Cause 3\* (DX11)<sup>9</sup>
  - Up to 160% average FPS uplift at 1080p with Very High settings

- Just Cause 4\* (DX11)<sup>9</sup>
  - Up to 268% average FPS uplift at 1080p with Very High settings
- New World\* (DX11)<sup>9</sup>
  - Up to 13% average FPS uplift at 1080p with Very High settings
- Returnal\* (DX12)<sup>8</sup>
  - Up to 8% average FPS uplift at 1080p with Epic settings
- Sid Meier's Civilization VI: Gathering Storm\* (DX11)<sup>9</sup>
  - Up to 32% average FPS uplift at 1080p with High settings
- Sons of the Forest\* (DX11)<sup>9</sup>
  - Up to 15% average FPS uplift at 1080p with Ultra settings
- Space Engineers\* (DX11)<sup>9</sup>
  - Up to 69% average FPS uplift at 1080p with Extreme settings
- Star Citizen\* (DX11)<sup>9</sup>
  - Up to 9% average FPS uplift at 1080p with Very High settings
- Star Wars Squadrons\* (DX11)<sup>9</sup>
  - Up to 6% average FPS uplift at 1080p with Ultra settings
- Stellaris\* (DX11)<sup>9</sup>
  - Up to 5% average FPS uplift at 1080p with High settings
- Tekken 8\* (DX12)<sup>8</sup>
  - Up to 15% average FPS uplift at 4K with Ultra settings
- The Last of Us Part 1\* (DX12)<sup>8</sup>
  - Up to 8% average FPS uplift at 1080p with Ultra settings
- Warframe\* (DX11)<sup>9</sup>
  - Up to 20% average FPS uplift at 1080p with High settings
- Watch Dogs: Legion\* (DX11)<sup>9</sup>
  - Up to 16% average FPS uplift at 1080p with Ultra settings
- XCOM 2\* (DX11)<sup>9</sup>
  - Up to 4% average FPS uplift at 1080p with Maximum settings

Game performance improvements on Intel® Core™ Ultra with Intel® Arc™ Graphics versus Intel® 31.0.101.5122 software driver for<sup>10</sup>:

- Like a Dragon: Infinite Wealth\* (DX12)
  - Up to 25% average FPS uplift at 1080p with High settings
- Returnal\* (DX12)
  - Up to 6% average FPS uplift at 1080p with Low settings
- The Last of Us Part 1\* (DX12)
  - Up to 6% average FPS uplift at 1080p with Very Low settings

## **FIXED ISSUES:**

### **Intel® Arc™ A-Series Graphics Products:**

- Alan Wake 2\* (DX12) may exhibit white corruption on reflective surfaces when Transparency is set to Off. A workaround is to set Transparency to Low or High.
- Sons of the Forest\* (DX11) may exhibit corruption on the item text in the game inventory.
- Intel® Smooth Sync may not work as expected with certain DX11 games.

### **Intel® Core™ Ultra with Intel® Arc™ Graphics Products:**

- The Talos Principle 2\* (DX12) may experience an application crash during gameplay with certain Upscaling Presets.
- Call of Duty Modern Warfare III\* (DX12) may experience application crash in certain gameplay scenarios.
- Blackmagic Fusion\* may experience intermittent application crash during render operations.

## **KNOWN ISSUES:**

### **Intel® Arc™ A-Series Graphics Products:**

- Dead by Daylight\* (DX11) may experience an application crash during gameplay.
- Topaz Video AI\* may experience errors when using some models for video enhancement.

### **Intel® Core™ Ultra with Intel® Arc™ Graphics Products:**

- Diablo 4\* (DX12) may exhibit corruption on the terrain during gameplay.
- Uncharted: Legacy of Thieves Collection\* (DX12) may experience application crash after loading into gameplay.
- Call of Duty Warzone 2.0\* (DX12) may exhibit corruption in game menu and during gameplay.
- Autodesk Maya\* may experience an application crash while running SPECAPC\* benchmark.
- Blender\* may experience an application crash while rendering some scenes on certain system memory configurations.
- Topaz Video AI\* may experience errors when using some models for video enhancement.
- Serif Affinity Photo 2\* may experience application crash while running benchmark.

### **Intel® Iris™ Xe MAX Graphics Products:**

- Driver installation may not complete successfully on certain notebook systems with both Intel® Iris™ Xe + Iris™ Xe MAX devices. A system reboot and re-installation of the graphics driver may be required for successful installation.

### **Intel® Core™ Processor (12<sup>th</sup>-14<sup>th</sup> Generation) Products:**

- Dragon Quest X Online\* (DX9) may experience sporadic application crash during gameplay.

## **INTEL® ARC™ CONTROL KNOWN ISSUES:**

- Using Arc Control Studio capture with certain games may incorrectly generate multiple video files.
- The "Connector" type in the Display page may incorrectly show DP\* when using an HDMI\* display connection.
- Arc Control Studio capture recording file may become corrupted when the mouse cursor is enabled during HDR capture.
- Camera preview may turn off after the system goes into connected standby mode.

### **Intel® Arc™ Control Performance Tuning (BETA):**

- Intel® Arc™ Control Performance Tuning is currently in Beta. As such, performance and features may behave unexpectedly. Intel® will continue to refine the Performance Tuning software in future releases.

## **NOTES:**

- Take your system lighting to the next level with Intel® Arc™ RGB Controller. Intel® Arc™ RGB Controller was custom designed to allow users to harness 90 individually addressable LEDs on Intel® Arc™ A770 Graphics Limited Edition cards. Intel® Arc™ RGB Controller is available for download [here](#).
  - Supported on Intel® Arc™ A770 Graphics Limited Edition on Windows®10 and Windows®11.
  - Intel® and Cooler Master\* collaborated on the creation of this software.
  - For more information on how to enable the RGB lighting for your Intel® Arc™ A770 Graphics Limited Edition card, see the [Intel® Arc™ A-Series Graphics – Desktop Quick Start Guide](#).

## CONTENTS OF THE PACKAGE:

- Intel® Graphics Driver
- Intel® Media SDK Runtime (21.0.1.35)
- Intel® oneVPL GPU Runtime (21.0.2.9)
- Intel® Graphics Compute Runtime for OpenCL\* Driver
- Vulkan\*3 Runtime Installer
- Intel® Graphics Driver Installer (1.0.850)
- oneAPI Level Zero Loader and Validation Layer
- Intel® Graphics Compute Runtime for OneAPI Level Zero specification
- Intel® Arc™ Control installer (1.74.5391.3)
- Intel® Driver Support Assistant

## OPERATING SYSTEM SUPPORT:

Intel Graphics <sup>1</sup>	Microsoft Windows® 11 64-bit October 2023 Update (23H2)	Microsoft Windows® 11 64-bit September 2022 Update (22H2)	Microsoft Windows® 11 64-bit October 2021 Update (21H2)	Microsoft Windows® 10 64-bit October 2022 Update (22H2)
Intel® Core™ Ultra with Intel® Arc™ Graphics and Intel® Graphics (Codename Meteor Lake)	X	X	X	X
Intel® Arc™ A770, A750, A580, A380, A310, A770M, A730M, A570M, A550M, A530M, A370M and A350M Graphics (Codename Alchemist)	X	X	X	X
14th Generation Intel Core Processors with Intel UHD Graphics (Codename Raptor Lake Refresh)	X	X	X	X
13th Generation Intel Core Processors with Intel UHD Graphics (Codename Raptor Lake-S, Raptor Lake-HX, Raptor Lake-H, Raptor Lake-P, Raptor Lake-U)	X	X	X	X
12th Generation Intel Core Processors with Intel Iris Xe Graphics and Intel UHD Graphics (Codename Alder Lake-H, Alder Lake-P, Alder Lake-U, Alder Lake-S, Alder Lake-HX, Alder Lake-N)	X	X	X	X
11th Generation Intel Core Processors with Intel Iris X <sup>e</sup> Graphics and Intel UHD Graphics (Codename Tiger Lake, Tiger Lake-H, Rocket Lake)	X	X	X	X
Intel Iris X <sup>e</sup> Discrete Graphics (Codename DG1)	X	X	X	X

## SUPPORTED APIs:

API	Version	Intel Graphics <sup>1</sup>
DirectX* <sup>4</sup>	12	11th Generation Intel® Core™ processors and higher
Vulkan* <sup>3</sup>	1.3	11th Generation Intel® Core™ processors and higher
OpenGL*	4.6	11th Generation Intel® Core™ processors and higher
OpenCL*	3.0	11th Generation Intel® Core™ processors and higher
Intel® oneAPI <sup>5</sup> Level Zero	1.15 <sup>5</sup>	11th Generation Intel® Core™ processors and higher
Intel® oneAPI Video Processing Library* <sup>6</sup> GPU RT	2.9	11th Generation Intel® Core™ processors and higher and Xe Graphics and newer

If you are uncertain of which Intel processor is in your computer, Intel recommends using the or [Intel Driver & Support Assistant](#) to identify your Intel processor.

### Note:

- 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.
- Are you still experiencing an error preventing the driver update? Look here for [why and a solution](#). 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.
- Product is conformant with the Vulkan\* 1.3 specification. Vulkan\* and the Vulkan\* logo are registered trademarks of the Khronos Group Inc\*.
- 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.
- Intel® oneAPI Level Zero version is supported on 6<sup>th</sup> generation Intel® Core™ processors and above. Note that Intel® Atom processors are not supported.
- [Intel® oneAPI Video Processing Library](#) GPU Runtime\* release – more details below
  - Intel® OneAPI Video Processing Library Specification:  
<https://spec.oneapi.io/versions/latest/elements/oneVPL/source/index.html>
  - [Upgrading from Intel® Media SDK to Intel® oneAPI Video Processing Library](#)
- See the [Windows Subsystem for Linux Installation Guide](#) for Windows 10 onwards for more details about how to install a supported Linux distribution.
- Game performance testing from Intel as of January 23, 2024, using the following configuration: Intel Core i9-14900K, ASUS ROG MAXIMUS Z790 HERO, 32GB Corsair DOMINATOR Platinum RGB DDR5 @ 5600MHz, OS: Microsoft Windows 11 Pro 22H2, Discrete Graphics: Intel® Arc™ A750 Limited Edition, Graphics Driver: 31.0.101.5085 WHQL, 31.0.101.5186 WHQL, Motherboard BIOS: v1801. Performance may vary.
- Game performance testing from Intel as of January 23, 2024, using the following configuration: Intel Core i5-13400F, ASUS ROG MAXIMUS Z790 HERO, 32GB Corsair DOMINATOR Platinum RGB DDR5 @ 4800MHz, OS:

Microsoft Windows 11 Pro 22H2, Discrete Graphics: Intel® Arc™ A750 Limited Edition, Graphics Driver: 31.0.101.5085 WHQL, 31.0.101.5186 WHQL, Motherboard BIOS: v1801. Performance may vary.

10. Game performance testing from Intel as of January 23, 2024, using the following configuration: MSI Prestige 16 AI Evo B1MG-005US laptop - Intel® Core™ Ultra 7 155H, 32GB LPDDR5 @ 6400MHz, OS: Microsoft Windows 11 Pro 22H2, Graphics: Intel® Arc™ Graphics, Graphics Driver: 31.0.101.5122 WHQL, 31.0.101.5234 WHQL, Motherboard BIOS: E15A1IMS.106. MSI Center user scenario Extreme Performance. Performance may vary.

## Notices & Disclaimers

Performance varies by use, configuration and other factors. Learn more on the [Performance Index site](#).

Performance results are based on testing as of dates shown in configurations and may not reflect all publicly available updates. No product or component can be absolutely secure. Your costs and results may vary. Intel technologies may require enabled hardware, software or service activation.

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For more information on Intel Processors and Intel Graphics, please visit:

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[Intel® Arc™ Graphics](#)

[14th Gen Intel® Core™ Desktop Processors](#)

[13th Gen Intel® Core™ Processor Family](#)

[12th Gen Intel® Core™ Processors](#)

[Intel® Core™ Processor Family](#)

[Intel® Xeon® E Processors](#)

[Intel® Graphics](#)

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