

Date: April 19, 2024

Driver Version: 31.0.101.5444 Non-WHQL

Intel® Graphics Driver package now includes Intel® Arc™ Software & Drivers Uninstaller. It can be accessed after driver installation in Windows "Add or remove programs" under the name *Intel Arc Software and Drivers*, and offers a more thorough and customizable uninstallation experience.

Gaming Highlights:

Game performance improvements on Intel® Arc™ A-Series Graphics Products versus Intel® 31.0.101.5382 software driver for8:

- Astroneer* (DX11)
 - Up to 30% average FPS uplift at 1080p with Ultra settings
- Days Gone* (DX11)
 - Up to 5% average FPS uplift at 1080p with Very High settings
- Dyson Sphere Program * (DX11)
 - Up to 15% average FPS uplift at 1080p with Default settings
- Fortnite Performance Mode* (DX11)
 - Up to 15% average FPS uplift at 1080p with Ultra settings
- Lethal Company* (DX11)
 - O Up to 14% average FPS uplift at 1080p with Default settings
- Mass Effect Legendary Edition* (DX11)
 - Up to 14% average FPS uplift at 1080p with Ultra settings
- Mount & Blade II: Bannerlord* (DX11)
 - Up to 8% average FPS uplift at 1080p with Very High settings
- Need for Speed: Heat* (DX11)
 - Up to 36% average FPS uplift at 1080p with Ultra settings
- Unturned* (DX11)
 - Up to 5% average FPS uplift at 1080p with Ultra settings
- VRChat* (DX11)
 - Up to 5% average FPS uplift at 1080p with High settings
- World of Warships* (DX11)
 - Up to 7% average FPS uplift at 1080p with Maximum settings

Game performance improvements on Intel® Core™ Ultra with built-in Intel® Arc™ GPUs versus Intel® 31.0.101.5382 software driver for9:

- American Truck Simulator* (DX11)
 - Up to 10% average FPS uplift at 1080p with Medium settings
- Dyson Sphere Program * (DX11)
 - Up to 17% average FPS uplift at 1080p with Default settings
- Fortnite Performance Mode* (DX11)
 - Up to 12% average FPS uplift at 1080p with Medium settings
- Grim Dawn* (DX11)
 - Up to 11% average FPS uplift at 1080p with Medium settings
- Lethal Company* (DX11)
 - Up to 24% average FPS uplift at 1080p with Default settings
- Mass Effect Legendary Edition* (DX11)
 - $\circ~$ Up to 48% average FPS uplift at 1080p with Medium settings
- Need for Speed: Heat* (DX11)

Up to 19% average FPS uplift at 1080p with Medium settings

Fixed Issues:

Intel® Arc™ A-Series Graphics Products:

- No Rest for the Wicked* (DX11) may experience application crash while launching prologue gameplay.
- Assetto Corsa* (DX11) may exhibit full screen corruption while switching windows using Alt+Tab during gameplay.
- Halo Infinite* (DX12) may exhibit corruption with ray traced shadows enabled during gameplay.

Intel® Core™ Ultra with built-in Intel® Arc™ GPUs:

Diablo IV* (DX12) may exhibit corruption on the terrain during gameplay.

Known Issues:

Intel® Arc™ A-Series Graphics Products:

- No Rest for the Wicked* (DX11) may experience intermittent application crash during gameplay.
- Enshrouded* (VK) may experience application crash during gameplay.
- Doom Eternal* (VK) may exhibit intermittent flickering corruptions in game menu and during gameplay.
- PugetBench* Extended Preset Benchmark may fail to complete on certain Adobe Premiere Pro* Processing Tests.
- Topaz Video AI* may experience errors when using some models for video enhancement.

Intel® Core™ Ultra with built-in Intel® Arc™ GPUs:

- Avatar: Frontiers Of Pandora* (DX12) may experience a crash during game loading.
- Uncharted: Legacy of Thieves Collection* (DX12) may experience an application crash on loading to gameplay.
- Suicide Squad: Kill the Justice League* (DX12) may exhibit corruption on shadows during gameplay.
- PugetBench* Extended Preset Benchmark may fail to complete on certain Adobe Premiere Pro* Processing Tests.
- 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 enhancements.
- Procyon AI* may experience an application crash while running benchmark with precision float32.

Intel® Core™ Processor (12th-14th Generation) Products:

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

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</u> <u>Graphics issues</u>.

Intel® Arc™ Control Fixed Issues:

- The "Connector" type in the Display page may incorrectly show DP* when using an HDMI* display connection.
- Fortnite* may experience an application crash on launch when sharpening filter is enabled in Arc Control.
- Intel® Graphics Driver Installer may experience intermittent hang with black screen.
- Capture file may save with old file name after changing file name for the first time in Arc Control Capture Page.
- Endurance Gaming license and Rebar information may not show correct information.

Intel® Arc™ Control Known Issues:

- Arc Control Studio capture recording file may become corrupted when the mouse cursor is enabled during HDR capture.
- Arc Control may show intermittent error when trying to enable Virtual Camera and camera preview on Intel® Core™ Ultra with built-in Intel® Arc™ GPUs.
- Schedule Updates for Drivers may not work intermittently.



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 to download here.
 - o Supported on Intel® Arc™ A770 Graphics Limited Edition on Windows®10 and Windows®11.
 - o Intel® and Cooler Master* collaborated on the creation of this software.
 - o 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.

Driver Package Contents:

- Intel® Graphics Driver
- Intel® Media SDK Runtime (21.0.1.35)
- Intel® oneVPL GPU Runtime (21.0.2.10)
- Intel® Graphics Compute Runtime for OpenCL* Driver
- Vulkan*3 Runtime Installer
- Intel® Graphics Driver Installer (1.0.914.4)
- oneAPI Level Zero Loader and Validation Layer
- Intel® Graphics Compute Runtime for OneAPI Level Zero specification
- Intel® Arc™ Control installer (1.77.5529.0)
- Intel® Driver Support Assistant
- Intel® Arc™ Software & Drivers Uninstaller (1.0.914.4)

Supported APIs:

If you are uncertain of which Intel® processor is in your computer, Intel recommends using the Intel® Driver & Support Assistant to identify your Intel processor.

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API	Version	Intel Graphics ¹			
DirectX*4	12	11th Generation Intel® Core™ processors and higher			
Vulkan* ³	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*5 Level Zero	1.165	11th Generation Intel® Core™ processors and higher			
Intel® oneAPI Video Processing Library*6GPU RT	2.10	11th Generation Intel® Core™ processors and higher and X® Graphics and newer			



Operating System Support:

Intel Graphics ¹	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 built-in Intel® Arc™ GPUs and Intel® Graphics (Codename Meteor Lake)	✓	✓	✓	√
Intel® Arc™ A770, A750, A580, A380, A310, A770M, A730M, A570M, A550M, A530M, A370M and A350M Graphics (Codename Alchemist)	✓	✓	✓	✓
14th Generation Intel Core Processors with Intel UHD Graphics (Codename Raptor Lake Refresh)	√	√	√	√
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)	√	√	✓	√
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)	✓	✓	✓	✓
11th Generation Intel Core Processors with Intel Iris Xe Graphics and Intel UHD Graphics (Codename Tiger Lake, Tiger Lake–H, Rocket Lake)	√	✓	✓	√
Intel Iris Xº Discrete Graphics (Codename DG1)	√	√	✓	√

More on Intel Products:

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

- Intel[®] Core[™] Ultra Processors Family
- Intel® Arc™ Graphics Overview
- Intel® Arc™ Pro Graphics for Workstations
- 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

Notes & Disclaimers:

No product or component can be absolutely secure.

Your costs and results may vary.

Intel technologies may require enabled hardware, software or service activation.

- 1. Intel Labs conducts independent testing of supported software on Intel platforms to ensure compatibility. Please refer to software vendor system requirements to ensure compatibility with your system.
- 2. 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.

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 - 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 <u>reported directly to Intel</u>. 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* 1.3 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. Intel® oneAPI Level Zero version is supported on 6th generation Intel® Core™ processors and above. Note that Intel® Atom processors are not supported.
- 6. Intel® oneAPI Video Processing Library GPU Runtime* release more details below
 - a. Intel® oneAPI Video Processing Library Specification: https://spec.oneapi.io/versions/latest/elements/oneVPL/source/index.html
 - b. <u>Upgrading from Intel® Media SDK to Intel® oneAPI Video Processing Library</u>
- 7. See the Windows Subsystem for Linux Installation Guide for Windows 10 onwards for more details about how to install a supported Linux distribution.
- 8. Game performance testing from Intel as of April 18th, 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 22631.3447 Discrete Graphics: Intel® Arc™ A750 Limited Edition, Graphics Driver: 31.0.101.5382 WHQL, 31.0.101.5444 non-WHQL, Motherboard BIOS: v2102. Performance may vary.
- Game performance testing from Intel as of April 18th, 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 Home 22631.3447, Intel® Arc™ Graphics, Graphics Driver: 31.0.101.5382 WHQL, 31.0.101.5444 non-WHQL, Motherboard BIOS: E15A1IMS.10A. MSI Center user scenario: Balanced. Performance may vary.

