HIGHLIGHTS:

- Intel will be moving 6th - 10th Gen Intel Processor Graphics and related Intel Atom®, Pentium®, and Celeron® processor graphics to a legacy software support model. For more information on this support update and additional changes to the driver package, see Graphics Driver Support Update for 10th Generation and Older Intel Processor Graphics.

NOTE: This release does not include support for Intel® Iris® Xe Discrete Graphics (Codename DG1). Support will be re-added in a future driver release.

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FIXED ISSUES:

- An error message pop-up may be observed when launching Call of Duty: Vanguard* (DX12).
- An application crash may occur in Watch Dogs: Legion* (DX11) when starting the game.
- Some Intel NUCPA11 and Intel NUC11TN (formerly known as Panther Canyon and Tiger Canyon) products may incorrectly enter a sleep state when attempting a shutdown.
**KNOWN ISSUES:**

- An intermittent crash or hang may occur during gameplay in Ghostwire: Tokyo* (DX12).
- Counter-Strike: Global Offensive* (DX9) may experience a game crash when changing shadow quality settings in game.
- Destiny 2* may exhibit display signal loss or display flashing during gameplay when HDR is enabled.
- Stranger of Paradise: Final Fantasy Origin* may experience an application crash during gameplay.
- Tom Clancy's Ghost Recon Breakpoint* may experience minor shadow corruption in some areas of the game.
- CrossFire* (DX9) may experience an application crash and or security alert when joining a game.
- Minor graphical anomalies may be observed in Call of Duty: Warzone* (DX12), Diablo II: Resurrected* (DX12), Euro Truck Simulator* (DX11), Farming Simulator 22* (DX12), Grand Theft Auto V* (DX11), Halo Infinite* (DX12), Hitman 2* (DX12), Marvel's Guardians of the Galaxy* (DX12) and Microsoft Flight Simulator* (DX11).
- An "Update driver" pop-up error message may be observed when launching Battlefield 1* after upgrading from 30.0.100.9955 or older drivers.
- **[12th Generation Intel Core Processors]:**
  - Grid Legends* (DX12) may experience lighting corruption when lighting quality is set to high in the games settings.
  - CrossFire HD* (DX9) may experience an application crash when task switching during gameplay.
  - Chorus* may experience an application crash in some interior areas of the game such as the ship hangar.
  - Minor graphical anomalies may be seen in Destiny 2* (DX11), CrossFire HD* (DX9), GRID Legends* (DX12) (on changing lighting quality to high) and F1 2020* (DX12) when HDR is enabled.
  - Sniper Elite 5* (DX12) may experience a game crash or TDR with an error dialog pop-up message.
  - Ghostwire: Tokyo* (DX12) may intermittently experience a crash or TDR when transitioning between areas in the game.
  - Red Dead Redemption 2* (DX12) may experience lower than expected performance when the game API is set to DirectX® 12 with VSync enabled.
- **[11th and 12th Generation Intel Core Processors]:**
  - Minor graphical anomalies may be seen in Gears 5* (DX12).
  - A TDR may intermittently occur in Halo Infinite* (DX12) during gameplay.
  - A game crash or hang may occur when changing resolution in NBA 2K21* (DX12).
  - Displays connected via an external dock may exhibit a black screen when using 4K@60hz resolution.
- **[11th Generation Intel Core Processors with Intel Iris Xe graphics]:**
  - An intermittent crash or hang may occur in Final Fantasy VII Remake Intergrade* (DX12).
  - Minor graphical anomalies may be seen in Elex* (DX11), MechWarrior 5: Mercenaries* (DX12), Strange Brigade* (DX12) and The Ascent* (DX12).
  - A black screen or TDR may occur after launching, or during gameplay in Gears 5* (DX12).
- **[Intel Iris Xe Discrete graphics]:**
  - Support for Intel Iris Xe Discrete graphics is not included in this software release. An upcoming software update will re-introduce support for Intel Iris Xe Discrete graphics.

**CONTENTS OF THE PACKAGE:**

- Intel Graphics Driver
- Intel Display Audio Driver 11.2.0.10 (Intel Core Processors with Intel Hybrid Technology)
- Intel Media SDK Runtime (21.0.1.35)
- Intel oneVPL® GPU Runtime (21.0.2.7)
- Intel Graphics Compute Runtime for OpenCL® Driver
- Intel Graphics Command Center (installed via Microsoft® Store)
- Vulkan® Runtime Installer
- Intel Graphics Driver Installer (1.0.634.3)
- oneAPI Level Zero Loader and Validation Layer
- Intel Graphics Compute Runtime for oneAPI Level Zero specification
**OPERATING SYSTEM SUPPORT:**

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<tbody>
<tr>
<td>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)</td>
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<td>11th Generation Intel Core Processors with Intel Iris Xe Graphics and Intel UHD Graphics (Codename Tiger Lake, Tiger Lake-H, Rocket Lake)</td>
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**SUPPORTED APIs:**

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<thead>
<tr>
<th>API</th>
<th>Version</th>
<th>Intel Graphics(^1)</th>
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<tbody>
<tr>
<td>DirectX(^*4)</td>
<td>12</td>
<td>11th Generation Intel Core processors and higher</td>
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<tr>
<td>Vulkan(^3)</td>
<td>1.3</td>
<td>11th Generation Intel Core processors and higher</td>
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<tr>
<td>OpenGL(^*)</td>
<td>4.6</td>
<td>11th Generation Intel Core processors and higher</td>
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<tr>
<td>OpenCL(^*)</td>
<td>3.0</td>
<td>11th Generation Intel Core processors and higher</td>
</tr>
<tr>
<td>Intel oneAPI(^5) Level Zero</td>
<td>1.7(^5)</td>
<td>11th Generation Intel Core processors and higher</td>
</tr>
<tr>
<td>Intel oneAPI Video Processing Library(^6) GPU RT</td>
<td>2.7</td>
<td>11th Generation Intel Core processors and higher and Xe Graphics and newer</td>
</tr>
</tbody>
</table>

If you are uncertain of which Intel processor is in your computer, Intel recommends using the [Intel Driver & Support Assistant](https://www.intel.com/content/www/us/en/support/home.html) to identify your Intel processor.

Be sure to check out [gameplay.intel.com](https://gameplay.intel.com), where you'll find recommended in-game settings for your Intel Graphics system for many more of your favorite games.
Note:

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. 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.

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
   b. Upgrading from Intel Media SDK to Intel oneAPI Video Processing Library

7. See the Windows Subsystem for Linux Installation Guide for Windows 10 onwards for more details about how to install a supported Linux distribution.

More on Intel Processors
For more information on the Intel Core processor family, Intel Xeon E processor family, and 12th Generation Intel Core processors, please visit:

12th Gen Intel Core Processors
Intel Core Processor Family
Intel Xeon® E Processors
Intel Graphics

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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