Milestone Systems

XProtect® Smart Client 2017 R2

Hardware acceleration guide

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How to enable hardware acceleration

In XProtect® Smart Client you can use hardware accelerated video decoding. Hardware acceleration moves some of the CPU load to the Graphics Processing Unit (GPU). This improves the decoding capability and performance of the computer. This is particularly useful when you view multiple H.264/H.265 video streams with high frame rate and high resolution.

In XProtect Smart Client there are two settings for hardware acceleration: **Auto** and **Off**. Go to **Options** > **Advanced** > **Hardware acceleration**. The default setting is **Auto**.

The current status of the stream including the hardware acceleration status is visible by enabling **Video diagnostics overlay** > **Level 2**.
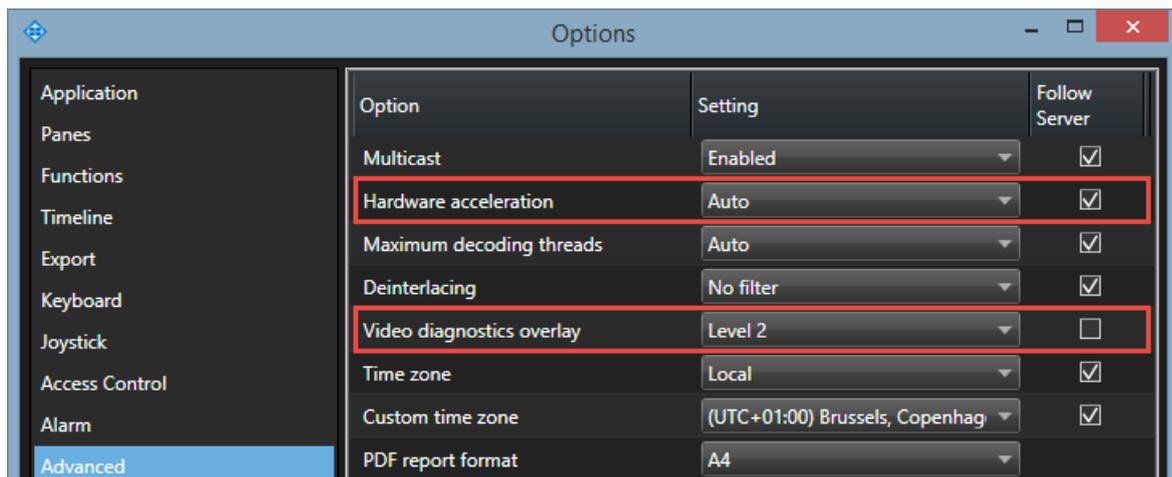
Hardware acceleration has the status **On** or **Off** in the video diagnostics overlay in the view item.
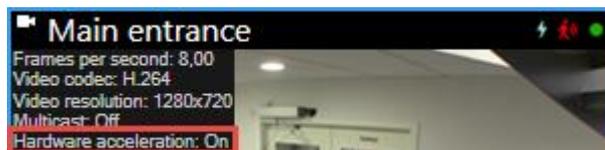
If **Hardware acceleration** is **Off**, this guide helps you determine if hardware acceleration is available at all. To check if your computer is capable of hardware acceleration, you need to make sure that Intel® Quick Sync is supported. You can do this by examining your computer in the following areas:

1. Operating system

2. CPU

3. Device manager

4. BIOS

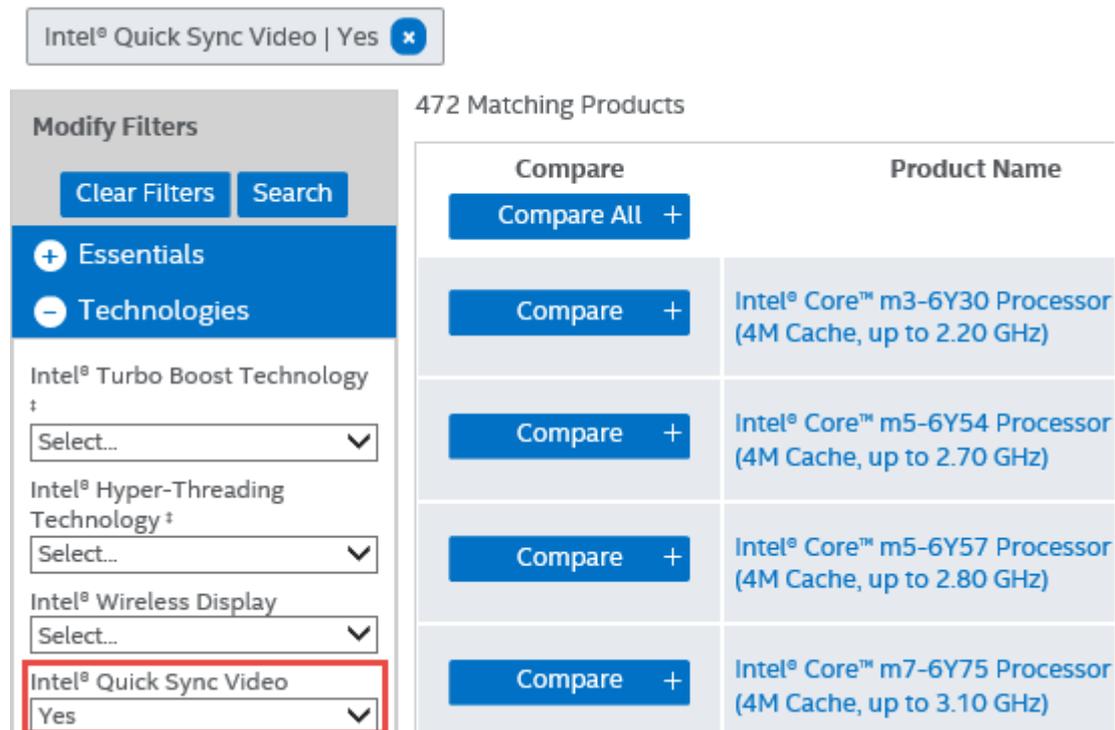5. Video driver

6. Memory

Verify your operating system

Make sure your operating system is Microsoft® Windows® 8.1, Windows® Server 2012 or newer.

Only non-virtual environments are supported.

Check CPU Quick Sync support

To find out if your processor supports Intel Quick Sync Video, visit the Intel website http://ark.intel.com/search/advanced?s=t&quicksyncvideo=true.

In the menu, set **Technologies** > **Intel Quick Sync Video** filter to **Yes**.

Examine the Device Manager

The Intel HD display adapter must be present in Windows Device Manager.

You can connect your displays to any display adapter available. If a more powerful display adapter is available in your computer, typically NVIDIA® or AMD®, connect your displays to this adapter to use both resources. Intel HD adapter for hardware accelerated decoding and NVIDIA or AMD for rendering.
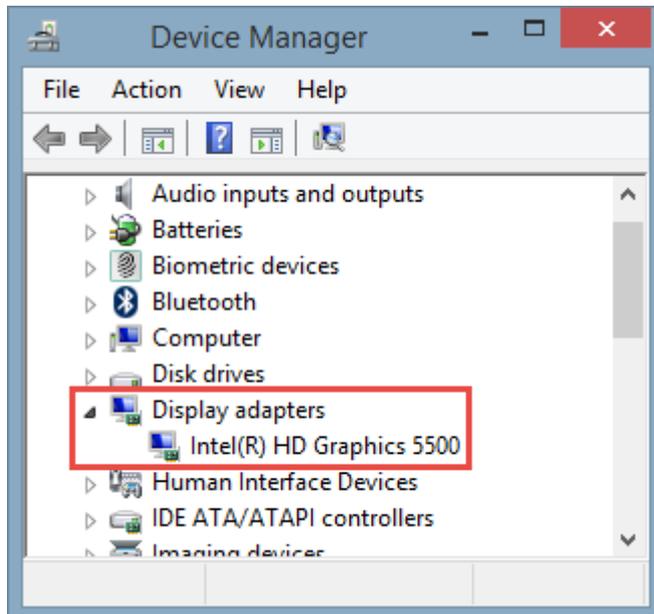
If the Intel HD adapter is not present, you must enable the display adapter in the computer BIOS (see "Enable the Intel HD adapter in the BIOS" on page 5).

Enable the Intel HD adapter in the BIOS

If another display adapter, for example NVIDIA or AMD, is available in your computer, the onboard Intel HD display adapter may be disabled and you must enable it.

The Intel HD display adapter is located on the motherboard as a part of the CPU. To enable it, look for graphics, CPU or display settings in the computer BIOS. The vendor's motherboard manual may be helpful to find the relevant settings.

If changing the settings does not enable the onboard Intel HD display adapter, you can try moving it to another slot and then connect the display to the motherboard. In some cases, this can enable the onboard display adapter.

Update the Intel video driver

Make sure that the driver version for your Intel HD display adapter supports Intel Quick Sync Video. You can do this by updating the driver version to the newest version available from Intel. There are two ways of doing this. Manual download and install or using the Intel Driver Update Utility.

Manual download and install:

1. Go to the Intel download website https://downloadcenter.intel.com/

2. Enter the name of your integrated display adapter

3. Manually download and install the driver

For automatic detection and updates of Intel components and drivers:

1. Download Intel Driver Update Utility http://www.intel.com/p/en_us/support/detect

2. Auto search for the drivers

3. Choose to update the driver for Intel HD Graphics

Check memory modules configuration

If your system supports more than one memory channel, you can increase the system performance by making sure that a minimum of two channels have a memory module inserted in the correct DIMM slot. Refer to the motherboard manual to find the correct DIMM slots.

Example:

A system with two memory channels and a total of 8Gb of memory, obtains the best performance using a 2 x 4Gb memory module configuration.
If you use a 1 x 8Gb memory module configuration, you only use one of the memory channels.

About Milestone Systems

Milestone Systems is a leading provider of open platform video management software; technology that helps the world see how to ensure safety, protect assets and increase business efficiency. Milestone enables an open platform community that drives collaboration and innovation in the development and use of network video technology, with reliable and scalable solutions that are proven in more than 150,000 sites worldwide. Founded in 1998, Milestone is a stand-alone company in the Canon Group. For more information, visit: http://www.milestonesys.com.