

To learn more about NVIDIA PureVideo HD, go to [www.nvidia.com/purevideo](http://www.nvidia.com/purevideo).



**Features Benefits**

- NVIDIA PureVideo HD technology** NVIDIA PureVideo HD technology is the combination of high-definition movie decode acceleration and post-processing, HDCP circuitry, and integration with HD movie players that delivers cinematic quality Blu-ray and HD DVD movies on your PC.
- Discrete, Programmable Video Processor** NVIDIA PureVideo is a discrete programmable processing core in NVIDIA GPUs that provides superb picture quality and ultra-smooth movies with low CPU utilization and power.
- Hardware Decode Acceleration** Provides ultra-smooth playback of H.264, VC-1, WMV and MPEG-2 HD and SD movies
- Spatial-Temporal De-Interlacing** Sharpens HD and standard definition interlaced content on progressive displays, delivering a crisp, clear picture that rivals high-end home-theater systems
- High-Quality Scaling** Enlarges lower resolution movies and videos to HDTV resolutions, up to 1080i, while maintaining a clear, clean image. Also provides downscaling of videos, including high-definition, while preserving image detail.
- Inverse Telecine (3:2 & 2:2 Pull-down Correction)** Recovers original film images from films-converted-to-video (DVDs, 1080i HD content), providing more accurate movie playback and superior picture quality.
- Bad Edit Correction** When videos are edited after they have been converted from 24 to 25 or 30 frames, the edits can disrupt the normal 3:2 or 2:2 pull-down cadence. PureVideo uses advanced processing techniques to detect poor edits, recover the original content, and display perfect picture detail frame after frame for smooth, natural looking video.
- Video Color Correction** NVIDIA's Color Correction Controls, such as Brightness, Contrast and Gamma Correction let you compensate for the different color characteristics of various RGB monitors and TVs, ensuring movies are not too dark, overly bright, or washed out regardless of the video format or display type.
- LCD Sharpening** Notebook LCD displays can exhibit "ghosting" effects because of the slow response time of liquid crystals. The LCD sharpening feature compensates for this slower response time by increasing color signals, thereby automatically eliminating ghosting effects.
- Integrated SD and HD TV Output** Provides world-class TV-out functionality via Composite, S-Video, Component, DVI, or HDMI connections. Supports resolutions up to 1080p depending on connection type and TV capability.
- HDCP Circuitry** Designed to meet the output protection management (HDCP) and security specifications of the Blu-ray Disc and HD DVD formats, allowing the playback of encrypted movie content on PCs when connected to HDCP-compliant displays.
- HD Movie Player Integration** NVIDIA PureVideo HD technology powers the world's leading HD movie player software applications, providing the optimal HD DVD and Blu-ray Disc movie experience.

**NVIDIA® PureVideo™ HD Technology**

Essential for the Ultimate HD Movie Experience on a PC

The next digital entertainment revolution is about to begin, with highly anticipated HD DVD and Blu-ray movies shipping this summer. HD DVD and Blu-ray Disc formats promise to bring a new level of movie viewing experience to the PC, with superb picture quality far surpassing standard-definition DVDs.

These new movie formats also bring a new set of requirements that a PC must meet, presenting a challenge for PC manufacturers who want to deliver the highest quality movie playback to their customers. NVIDIA meets this challenge with PureVideo HD technology, which features hardware acceleration, integration with leading movie players, and HDCP feature support, enabling PC manufacturers to easily build a complete high-definition PC that can play back both HD DVD and Blu-ray movies.

NVIDIA is committed to delivering an end-to-end solution for high-definition movies that makes it easy for consumers to enjoy stunning picture quality on their computers. NVIDIA PureVideo HD technology delivers the ultimate high-definition movie experience on a PC.





**PUREVIDEO™ HD**



**High-definition HD DVD and Blu-ray movies have finally come to the PC.**  
But not every PC is up to the challenge.

The transition from standard DVD to high-definition movies promises to deliver an exceptional viewing experience to consumers, and they expect to see superb picture quality and smooth movie playback. To deliver on that promise, PCs must meet unique requirements, including special HD optical drives, hardware acceleration, content protection, HDCP compatible displays, and new HD movie player software.

To play HD DVD and Blu-ray discs, a PC must have:

**The right graphics card:**

- A graphics card is a must—a CPU alone simply cannot provide the needed processing power. However, not just any graphics card will do. The card needs to provide fully functional HDCP support, effectively accelerate high-definition formats, and include content security technology.

**The right movie player software:**

- The movie player software should be capable of playing H.264, VC-1, and MPEG-2 Blu-ray and HD-DVD movies at full frame rates without overloading the CPU. The player software must be licensed by the Advanced Access Content System (AACS) Licensing Authority and utilize an approved methodology for protecting content over a user-accessible bus if used on a desktop PC.

**The right optical disc drive:**

- The drive must be AACS enabled and capable of reading and playing Blu-ray and/or HD DVD movie titles at speeds that sustain playback at full frame-rate without overloading the CPU.

**NVIDIA PureVideo HD technology provides the complete solution**

NVIDIA is working with PC manufacturers to help them meet the challenges of the new video formats. PureVideo HD technology provides:

- Hardware acceleration for decoding H.264, VC-1, and MPEG-2 movies with low CPU utilization and power consumption.
- HD post-processing features to play these movies with the utmost clarity at resolutions up to 1080p, the highest HD resolution available.
- Tight integration with leading HD movie player applications to enable them to take advantage of PureVideo HD technology's hardware acceleration, video post-processing, and HDCP features.
- Fully functional HDCP support to meet the output protection management and security specifications of Blu-ray and HD DVD movie formats.

**PureVideo HD**

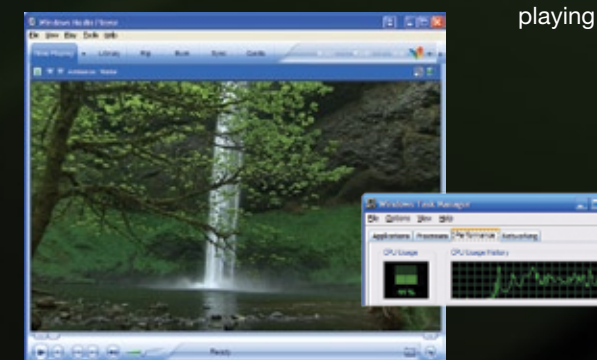
NVIDIA PureVideo HD technology is the combination of high-definition movie decode acceleration and post-processing, HDCP circuitry, and integration with HD movie players that delivers the ultimate high-definition movie experience on a PC. With PureVideo HD, you enjoy stunning HD DVD and Blu-ray movie with low CPU utilization and power consumption.

**Superb picture quality**

NVIDIA PureVideo HD technology brings exceptional picture quality to HD DVD and Blu-ray movies. It accelerates and enhances high-definition movies in H.264, VC-1, and MPEG-2 formats, delivering precise images that have up to six times the detail of standard DVD movies.



PureVideo HD technology's high-definition post-processing features play these movies with the utmost clarity at resolutions up to 1080p—the highest HD resolution available.



**Low CPU utilization and power consumption**

PureVideo HD technology provides superb picture quality and ultra-smooth video with low CPU utilization and power consumption, providing higher quality movie playback and image clarity.

**Selected by major PC manufacturers**

Leading OEMs including Sony, Toshiba and Acer have adopted NVIDIA GeForce® GPUs to power their first PCs capable of playing Blu-ray and HD DVD movies.