

Re: LINK, HDCP is blocking Hi-Def from current computers in both graphic cards and monitors.

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Source:

<http://www.tech-archive.net/Archive/Windows/microsoft.public.windows.mediacenter/2006-07/msg00351.html>

- *From:* "Doug Knox MS-MVP" <dknox@xxxxxxxx>
 - *Date:* Thu, 6 Jul 2006 17:48:28 -0400
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Many monitors that have DVI inputs are HDCP compliant, already. And sadly, very few video cards are. The latest chipsets from NVidia and ATI, but the card maker's themselves don't implement it.

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Doug Knox, MS-MVP Windows Media Center\Windows Powered Smart Display\Security
Win 95/98/Me/XP Tweaks and Fixes
<http://www.dougknox.com>

Per user Group Policy Restrictions for XP Home and XP Pro
http://www.dougknox.com/xp/utills/xp_securityconsole.htm

Please reply only to the newsgroup so all may benefit.
Unsolicited e-mail is not answered.

"Cymbal Man Freq." <Don't%20Bother@xx> wrote in message
[news:rTdrG.14248\\$O35.2290@xx](news:rTdrG.14248$O35.2290@xx)

Written by Vincent Alzieu
Published on January 6, 2006
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We have two bad pieces of news for you. Which one do you want first?

- The first is that almost all monitors sold up until now (CRT and TFT) won't be capable of displaying HD movies.
- The second is that graphic cards suffer from the same problem.

The origin of this mess is a new indispensable norm called HDCP, for High Bandwidth Digital Content Protection.

How and Why

Those who control the market are panicking and they feel that piracy is harming creativity. There have been no real studies on its consequences, no figures, but they are convinced of this fact. So they fight back. The choices available were

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either the complete impossibility to read HD content on computers (already the case for some audio CDs) or else develop an encoding protection system, which makes it impossible to copy or even attempt of copy. They have entrusted the IT industry to themselves develop a reliable solution. Intel played a central part in the consortium, which finally launched a new HDCP norm. The entire image process will have to be certified for the movie to be read:

the reader, Blu-Ray or HD-DVD,

the graphic card, if the movie is read on a computer,

or the display, CRT, LCD, plasma or even projector

The communication schema is the following: the OS COPP Driver (Certified Output Protection Protocol) verifies with the graphic card bios to check if it is legitimate or not. Once this verification is done, the card then goes to the monitor KSV, a unique 40 bit key, which will authorize (or not) the reading and displaying of the movie after comparison with a data base provided by the HDCP consortium.

Much more the link....

To see HD content, your monitor will have to be eligible. It intends that all elements be HDCP certified. Rule number 1: the player and the graphic card have to be HDCP. Either there won't be anything displayed at all, or the image will have a lower quality.

In fact, it seems that if the monitor isn't HDCP certified, the media will have to choose what to do. This is explained in a document provided by Microsoft, who is of course associated to this protection. The document describes the role of each element and addresses recommendations to content providers on the rules to apply. The recommendations vary according to the interface:

We have to admit, we only recently figured out the consequences of HDCP. It's been months since we knew that a coming norm would be problematic and this is the reason for this article. It took so long, because of a lack of information even on the part of the manufacturer. It is only after getting to the bottom of the subject that we learned its true dimension.

In short, even if you have bought one of the rare HDCP monitors on the market (the probability is low except if it includes an HD Ready sticker) it wouldn't be capable of displaying protected HD videos because your current graphic card isn't compatible. Even if you would have paid the money for the latest graphic card, with video interpolation and processing it doesn't support DRM and HD protected movies. The result would have been the same; a black screen in the worst case and downsizing at best. So why all the fuss? Because these functions

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would have cost a little bit more and in this context (a cut throat price war), no one want to increase its prices for something nobody is asking for...just because of a lack of information.

So neither monitor nor graphic card manufacturers offer this function, which isn't too expensive and available since at least 2003, because we don't ask for it. Is it time to tell them that it's now urgent to include it? For that isn't the best way to write to them directly? Here is a sample letter:

Object : Why my monitor and graphic card aren t HDCP certified?

To whom it may concern,

I recently bought some new computer equipment and had in mind the possibility of reading HD content. For now everything is OK, demonstration movies available on Microsoft and Apple websites are displayed perfectly.

How could I ever imagined that I wouldn't be able to read protected HD content (Blu-Ray, HD-DVD, satellite, cable or downloaded) because my monitor or my graphic card don't include the required components which only cost a few \$?!?

HD movies are about to be released. On the market there are no compatible graphic cards or monitors even if the components for HDCP certification are available at least since 2003?!?

This choice leaves me perplexed Based on the fact that you, the manufacturer are aware of this unavoidable norm for three years and that ensuring the compatibility would have cost you only \$5 per product, do I have to conclude that you are simply planning on us renewing your products?

Thank you for any reply,

Kind but sincerely disappointed regards.

We could also add the major graphic card and monitor manufacturers:

ATI, NVIDIA, INTEL, Acer, Apple, Belinea, BenQ, Dell, Eizo, Fujitsu-Siemens, HP, Hyundai, Iiyama, LaCie, LG, Nec, Packard Bell, Philips, Samsung, Sony, ViewSonic...

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