

# Why did the display become a snapshot of the last time the monitor was plugged into the computer?

[devblogs.microsoft.com/oldnewthing/20080205-01](http://devblogs.microsoft.com/oldnewthing/20080205-01)

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I left [the story of the return of the dead home desktop computer](#) with a puzzle. When I plugged the monitor back into the original computer, it showed a snapshot of the screen at the time the monitor was unplugged. The computer itself continued operating, but the screen never updated. The frozen image remained until the power was turned off to the computer, at which point no image appeared on the monitor at all. The reason became apparent when I opened up the computer to see what the matter was. The act of unplugging the monitor from the computer the first time had jiggled the video card loose from its socket. The card was still seated well enough that the pins responsible for power were still connected. The card continued to pump the contents of the VRAM to the monitor, and the power keep the VRAM from losing its contents. On the other hand, the pins responsible for transferring data between the motherboard and the video card were unseated. When the motherboard (under the direction of the video card driver) tried to tell the card, “Hey, change that pixel from blue to red” the card never received the signal. That’s why the image was frozen. This particular computer doesn’t use screws to secure the cards to the backplane; it just has a hinged cover that allegedly holds the cards in place. Clearly this design leaves a bit to be desired. With the power off, reseal the card, then power back on, and everything is back in business. Congratulations to commenter Darkstar, who was [the first to guess the correct explanation](#).

And a final remark on the dead computer: The new video card is noisier than the old one, alas. The old one used a heat sink for cooling, whereas the new one uses a fan. And none of the video cards in the store mentioned on the boxes what they used for cooling. (Though the one I chose proudly proclaimed *Quiet operation* which I interpreted to mean that it was fanless, but which on further reflection was actually an admission that it had a fan, for if it were fanless, it would have said *Silent operation*.)

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