

Hard drive gone bad

//////////*1000+ HACKING TRICKS & TUTORIALS - ebook By Mukesh Bhardwaj Blogger - Paid Version - only @
TekGyd | itechhacks | Mukeshtricks4u*////////

The most common problems originate from corruption of the master boot record, FAT, or directory. Those are soft problems which can usually be taken care of with a combination of tools like Fdisk /mbr to refresh the master boot record followed by a reboot and Norton disk doctor or Spinneret.

The most common hardware problems are a bad controller, a bad drive motor, or a bad head mechanism.

1. Can the BIOS see and identify the hard drive correctly? If it can't, then the hard drives onboard controller is bad.
2. Does the drive spin and maintain a constant velocity? If it does, that's good news. The motor is functioning.
3. If the drive surges and dies, the most likely cause is a bad controller (assuming the drive is cool). A gate allowing the current to drive the motor may not be staying open. The drive needs a new controller.
4. Do you hear a lot of head clatter when the machine is turned on and initialized (but before the system attempts to access the hard drive). Head clatter would indicate that the spindle bearings are sloppy or worn badly. Maybe even lose and flopping around inside.
5. There is always the possibility that the controller you are using in the machine has gone south.

1. If the drive spins, try booting to the A> prompt, run Fdisk and check to see if Fdisk can see a partition on the hard drive. If Fdisk can see the partition, that means that it can access the drive and that the controller electronics are functioning correctly. If there is no head clatter, it may be just a matter of disk corruption which commonly occurs when a surge hits you machine and overwhelms the power supply voltage regulator. It commonly over whelms the system electronics allowing an EM pulse to wipe out the master boot record, file allocations table, and primary directory. Fdisk can fix the master boot record and Norton Disk Doctor can restore the FAT and Directory from the secondaries.
2. The drive spins but Fdisk can't see it. Try the drive in

another system and repeat the test to confirm that Fdisk can't read through the drives onboard controller. If it sees it in another system, then your machines hard drive interface is bad. You can try an upgraded or replacement controller card like a Promise or CMD Technologies (there are others) in you machine after disabling the integrated controller in the BIOS, but if the integrated controller went south, it may just be symptomatic of further failures and you'd be wise to replace the motherboard. Trying the drive in another machine also eliminates the variable that your machines 12 volt power output being bad

3. If you get head clatter but a constant velocity on the drive motor (no surging), you might try sticking the hard drive in the freezer for about 12 hours. This is an old trick from back in the days of the MFM/ESDI driver era. This can cause the drive components to shrink enough to make the track marker align with the tracks. We don't see that kind of platter spindle wear much anymore, but back in the old days, the balancing and bearings weren't as good. Still, under the right circumstances, it might help. It would depend on how old the drive is and how many hours of wear have occurred. You have to be quick to get your info off the drive when it works. Back then, the drives were much smaller, so there wasn't so much to copy. So, go after the important data first.

4. The drive doesn't spin. Either the onboard controller is bad or the motor is bad (assuming you did try the drive in another machine). It's time to hit the net and local independent shops to see if you can locate another drive of the same make and model that's good. Since the drive is probably an older drive and no longer in distribution, your best bet is to find an identical used drive. If you know someone with the same make and model, you might be wise to try and persuade them to sell you their drive with an offer of providing them with a free upgraded drive. If you can locate an identical drive, start with the controller replacement ... this is the simplest and least invasive. If swapping the controller doesn't produce the desired result, you can tear into the drive and swap the motors. While you have both drive opened up to accomplish this, scrutinize the platters, heads and armatures. You might even hook the drive up and power it from a system with both drives attached. This way, you could see anything that deviates between the actions of both drives when they are initialized. Swapping platters is unlikely to produce any positive result. They are a balanced system like the tires on your car and I suspect that the balance will be different for each drive as will other variables.

5. There's always Ontrack Corp. who will attempt to recoup your info starting at \$500 and going up from there. They don't fix and return the drive either.

If the info is all that important to you, I would seek some

professional and experience technician in your locality who makes his living from servicing and building computer systems ... not just selling them. If you have had much experience salvaging information from bad hard drives, your likelihood of success is low. In the case of soft corruption, all utilities have their eccentricities. Often times, Norton Disk Doctor will go too far (if you let it). It's wise to just let those utilities small steps and then have a look at the drive and see if you can copy it off. Norton will go so far as to rename directories and files, and even delete them or break them up into fragments which are useless.
