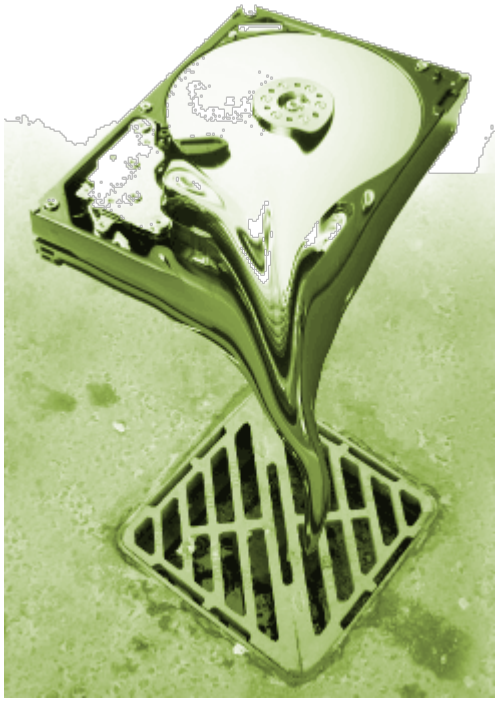
Is your hard drive working properly? Is it likely to fail? What would you do if it did?



Hard drive manufacturers used to rate the reliability of their drives in terms of a number of hours “MTBF” (mean time between failures). This was supposed to tell you how long you could reasonably expect a drive to last before a problem is likely, on average, to occur. It seems they don’t do this any more and I haven’t found out whether it’s because the figure was misleading or meaningless. Certainly, a study by Carnegie Mellon University found that users change their drives 15 times more often than the manufacturers would think they should.

I have seen various figures that suggest that, in practice, the reliability of drives starts to plummet at anywhere between five and seven years. All of this is irrelevant, really. The only important, irrefutable, fact is that drives **DO fail**. Given that fact, does it really make any difference whether there is a 1% chance or a 20% chance that your drive will fail in the next year? I’m by no means the only person to have known drives fail within their first year of life. The fact that such a drive would still be under warranty is not the point. The value is in the contents – your Windows installation, the programs, and the data. The best computer advice I can offer is that you assume that any drive can fail at any time.

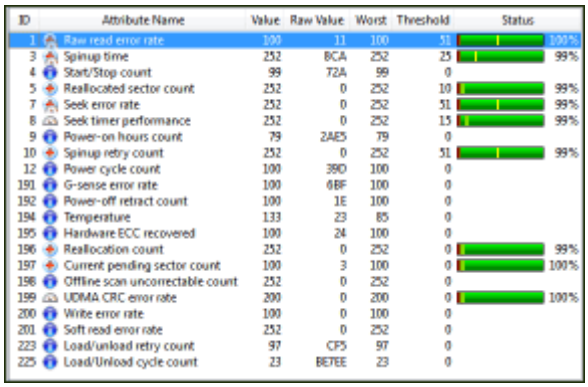
So how do you know if a drive is failing?

Under normal circumstances, you may not know. However, there are two very definite signs that might be present – alone or together – that clearly indicate that something is going wrong:

- **An increasing number of errors, freezes, and program crashes** may be caused by a failing drive. Such problems could be caused by disc drive read/write errors or by many others causes. It’s definitely worth heeding the warning and making sure your important data is backed up. You can then investigate further, knowing that you’ve protected the most valuable part of your computer system – your data.
- **A clicking noise coming from the drive.** Act immediately. The drive could fail at

any time. If there's any data on the drive that you don't want to lose, back it up **NOW**. If you're not sure whether what you can hear is serious, visit this link and listen to some death rattles of failing drives. Be warned, though, that if your drive is starting to fail it could go at any time, so backing up data is a better use of its dying moments than having it clicking away in the background while you decide which of the sounds on the above link is the best match.

Monitoring a Healthy Drive



Most drives have something called S.M.A.R.T. technology built in so that appropriate software can monitor the health of your drive. The software that I use on my own machines for this purpose – and when providing computer support for clients – is called Active@ Hard Disk Monitor Free. This keeps a constant check on many of the parameters that indicate the health of your drive. It also has a temperature gauge to warn you if the drive is overheating. The only real limitation of the software is that it can only monitor internal hard drives. You can't use it to monitor the health of, for instance, your USB-connected external backup drive. Nevertheless, I consider this a useful computer support tool that can give valuable warning of problems ahead.

Replacing a Hard Drive

If your drive has failed and Windows won't start then you need to take a deep breath. There are specialist data recovery companies who may be able to get some or all of your data back but the cost could run into four figures. You may need or choose to buy a new drive and re-install everything from scratch, re-loading any data backups that you do have or that recovery specialists have been able to rescue. You may or may not feel confident to do this yourself: this is the type of computer support that people such as I, myself, offer. Don't necessarily jump to the wrong conclusion, though. If you've just turned on your computer and Windows won't load then there could be a reason other than hard drive failure, so there could be less drastic and less expensive options.

If your drive does need replacing, but is working reliably at the moment, then the best plan is probably to employ software such as Paragon Partition Manager to clone the entire drive. This is not entirely risk-free. I've known such software completely trash the contents of a hard drive partition by making a simple error when creating the clone. My own strategy when using it is to back up important data by a different means first, and then to use the cloning software. This is much, much, quicker than installing Windows, programs, and data from scratch. It has to be said, though, that this kind of task is not for the faint-hearted and may

be beyond the technical knowledge of the average reader of this blog. Nevertheless, I hope it's useful to point out the kind of options you may have if you suspect that your hard drive may be going on the fritz.

To sum up, the best single piece of advice I can give on this subject is this – don't ignore the signs of a failing drive. You might be able to prevent a problem from becoming a disaster if you heed the warnings and act immediately.

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