Re: SP2 Installation Problem

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On Sat, 21 Aug 2004 23:15:34 −0400, Barry Watzman

>Chkdsk/r locates bad sectors −− does a scan of the hard drive.
>Problem is, that while with classic drives this might have done
>something, with modern IDE drives, Windows will never see a bad sector
>until the drive is failing catastrophically.

Hm. The truth of that depends on how early you define "failing catastrophically". I agree that just about everyone, from HD vendor to MS, are trying to sweep problems under the rug − if you don't make a concerted effort to spot and dodge problems, no−one else will.

Sounds paranoid? Read on...

>With modern IDE drives, what windows sees, until the drive is
>catastrophically dying, is a "logical" or "virtual" drive that is always
>perfect. If there are problems with a sector, the drive handles them
>internally through "defect reallocation" −− the "bad" sector is so
>marked bad (usually when it's still readable with retrys) and never used
>again, and the data is moved to a spare good sector, in a different
>place on the drive, all transparent to Windows.

This is true, and a process like this can happen at three layers:

1) HD's firmware defect management

This is what you refer to, and indeed you won't see any trace of these "repairs' in Windows. The physical sector readdressing is done within the HD, so nothing changes in the file systrem at all − which is why this management is compatable with other OSs.

2) NTFS on the fly repair

FATxx is free of this, but NTFS will basically do the same thing "on the fly" that the HD's firmware is trying to do. Is this useful, or likely to screw up in a "too many cooks" scenario?

These changes may or may not be visible; knowing how autocratic ChkDsk and AutoChk are (no user control, poor reporting buried in the swaps of Event Viewer under "Winlogon", etc.), my hopes are low.

3) Explicit suface tests

ChkDsk /R, Win9x GUI Scandisk "thorough" and Win9x DOS mode Scandisk "surface scan" all do the same thing − they test−read every sector in the volume and, if it cannot be read within a certain number of re