Patch, Or Your Solid State Drives Roll Over And Die

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Expiration dates for computer drives? That's what a line of HP solid-state drives are facing as the variable for their uptime counter is running out. When it does, the drive "expires" and, well, no more data storage for you!

There are a series of stages in the evolution of a software developer as they master their art, and one of those stages comes in understanding that while they may have a handle on the abstracted world presented by their development environment they perhaps haven't considered the moments in which the real computer that lives behind it intrudes. Think of the first time you saw an SQL injection attack on a website, for example, or the moment you realised that a variable type is linked to the physical constraints of the number of memory locations it has reserved for it. So people who write software surround themselves with an armoury of things they watch out for as they code, and thus endeavour to produce software less likely to break. Firmly in that arena is the size of the variables you use and what will happen when that limit is reached.

Sometimes though even developers that should know better get it wrong, and this week has brought an unfortunate example for the enterprise wing of the hardware giant HP. Their manufacturer has notified them that certain models of solid-state disk drives supplied in enterprise storage systems contain an unfortunate bug, in which they stop working after 32,768 hours of uptime. That's a familiar number to anyone working with base-2 numbers and hints at a 16-bit signed integer in use to log the hours of uptime. When it rolls over the value will then be negative and, rather than the drive believing itself to be in a renewed flush of youth, it will instead stop working.

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