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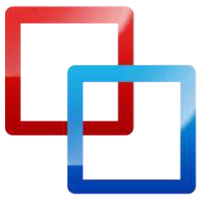
hard drive of the future

your guide to solid state drives

by lachlan roy



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YOUR GUIDE TO SOLID STATE DRIVES

By: Lachlan Roy
http://lachlanroy.com

Edited By: Justin Pot

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Introduction

To start I'd like to thank you for downloading this guide and taking the time to read it. I hope you'll find it useful and that it'll help you when you're looking to upgrade or replace your computer.

My aim is to explain to you all there is to know about solid state drives in a manner that's enjoyable to read and easy to understand while still providing plenty of useful information. It's more of a sub-guide to my other manual – Your PC, Inside and Out – which explains what all the different parts of a computer are, what they do and how they work together.

Solid State Drive? What's that?

You may have seen a lot of talk about *Solid State Drives* recently. In the last six months or so they've really taken the mid-range to high end computing world by storm. If a manufacturer decides to include a solid state drive in their computer they'll make sure that you know it's there. But *what are they?*

A solid-state drive (or *SSD*) is a *storage device* that performs the same functions as a *hard disk drive* (which you may know as a hard drive or an HDD). This means that it's used to store data for your computer to access, including the computer's operating system, its programs and all your files such as documents, pictures, music and videos. The larger the drive, the more you can store on it. It gets its name from the fact that it has *no moving parts*, hence making it 'solid state'.

However, while they fulfil the same role, SSDs and HDDs have some crucial differences, which I'll explain later.

A Quick History of SSDs

Solid State Drives in the literal sense have been around since the 1950s, although it wasn't until 1983 that the first "modern" solid state drive was readily available: Sharp's PC-5000 laptop's internal storage held a whopping *128 kilobytes* of data and used magnetism in a similar way to today's magnetic hard drives.1GB of flash memory would have cost $1 million. Crazy, huh?

In 1986 a company called Santa Clara Systems introduced "BatRam", which used 4MB modules that acted in a similar way to today's Random Access Memory (RAM) and required batteries to retain the data if the system lost power.