

How to set up and run a computer without blowing your budget

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It is a good idea to know about the possibilities of cost-effective computing because 1) there will be a time when we might want a backup computer as part of a disaster-recovery plan and 2) we might be advising someone for whom cost-effective computing would leverage an appropriate strategy or tactic.

Finding the Basic Box

A cost-effective computer is reasonably easy to find if one's search strategy includes surplus sales, corporate disposals, recycled computers, and remanufactured computers.

Surplus sales are operated by government agencies and large institutions like universities and major government contractors. You should know something about computers and troubleshooting before you go shopping so that you can spot major problems. You probably will not be able to open the machine to see the inside. If you get a chance to start the machine, you should know how to decode what you are seeing on the startup screens. That way, you know what you are getting.

Corporate disposals offer opportunities to get a machine actually useful for business. Many large businesses, like Boeing, have sales operations to get rid of computers not needed. Note that many of these machines are used in a network environment so that it is probable that the computer you get will be set to look for its operating system on a remote network rather than on its hard disk. To make sure that your computer will start apart from a network, you may have to look at the CMOS (consolidated metal-oxide semiconductor) settings to make sure your computer is set to look at its own hard disk for booting information.

Recycled computers offer cost-effective computing combined with the good feeling that one is helping the environment. Many of the components in computer hardware contain toxic materials so reuse becomes prudent. The

Take It Back Network, online at <http://www.takeitbacknetwork.org>, will lead you to resources that will accept, recondition, and sell computers with useful, though used, parts.

Many computer manufacturers will remanufacture their own machines to original factory standards with factory warranties and offer them for about half the price of a new machine on their own web sites or through sellers like Overstock, online at <http://www.overstock.com>.

Basic Software

Open Office, available for a free download at <http://www.openoffice.org>, replaces all the functions of proprietary programs and even includes a portable document format (PDF) maker. This is in addition to presentation software, a vector drawing tool, a mathematical calculation tool, a spreadsheet, a database manager, and a word processor. The 93- to 135- megabyte download is available in a number of languages and for operating systems including Microsoft Windows, Solaris, Macintosh, Linux, and FreeBSD.

Windows Adjustments

One of the most frustrating aspects of Microsoft Windows is its habit of doing things on its own. Taking control of Windows will allow you to control your system and the program Xteq X-Setup (version 6.6 available for free download at <http://www.xteq.com>) will give you access to over 1,600 settings in Microsoft Windows with wizards to guide you.

If you are curious about all of those numbers that Windows applies to errors, download the file "Error Messages for Windows" online at <http://www.zdnet.com/downloads>. It is a ZIPped file (so you will need WinZip, also available there, to open the 149-kilobyte file). Download this now--while your computer works--and print the file because you will use this list to decode the cryptic error messages you will see.

Utilities

To make your computing life more pleasant and more secure, add these tools (all available for free) to your office collection. For a

firewall, consider the Sygate Personal Firewall, online at <http://www.download.com> or <http://www.oldversion.com>, or ZoneAlarm, online at <http://www.zonelabs.com>. For an antivirus program, choose either Antidote Super Lite, online at <http://users.pandora.be/Robvdb/AntidoteSL.htm>, or AVG AntiVirus System, online at <http://www.grisoft.com>. To stop spyware, use Ad-Aware, online at <http://www.lavasoftusa.com>. To stop those annoying pop-ups that plague your web browsing, use PopUpStopper, available from <http://www.panicware.com>. If you want to receive fax transmissions in your electronic mailbox, sign up for eFax Free, at <http://www.efax.com>.

Remember that when you erase a file with most software, that file does not go away. All that happens is that a status flag in the file allocation table of the disk is changed to indicate that the space allocated to that file may be overwritten. Disk utilities exist to edit flags in disk file allocation tables to make files you thought you erased reappear. If you want to erase a file in a way that it cannot be retrieved, use a program that overwrites the file like Eraser, available at <http://www.tolvanen.com/eraser>.