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BASICS

Boss, I Need a Bigger Screen. For Work Efficiency, of Course.

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FOR those of us easily dazzled by technology, a trip to [Google's](#) sprawling headquarters in Mountain View, Calif. — with its replica of SpaceShipOne, its computerized toilets and solar-cell-covered parking lots — can be a delirious experience.

Yet what caught my attention on a recent visit was something pretty pedestrian: the programmers' desks. Specifically, their computer monitors.

I recently met several software engineers who work on Gmail, and each sported a spectacular configuration of screens. Some paired wide monitors with tall ones, others had huge screens married to small ones, and still others used several displays in series, giving the impression that in addition to building a Web-based e-mail system, they were helping Norad keep tabs on the nation's airspace.

For years, I've been reading about the psychic benefits of hooking up more than one monitor to your computer. A host of studies by specialists in human-computer interaction suggest that combining two displays, or using a single huge monitor, can significantly enhance your productivity. The theory is simply that the bigger your monitor, the more of your work you'll be able to see and the more you'll be moved to do.

In a study commissioned by the electronics company NEC, researchers at the [University of Utah](#) recently asked office workers to perform several common tasks using various monitor configurations. They found that people who used two 20-inch monitors were 44 percent more productive at certain text-editing operations than people using a single 18-inch monitor.

Not long ago, such studies might have seemed moot. Flat-panel displays weren't cheap. Perhaps stockbrokers, film editors and Google engineers could finagle several large displays, but mere office workers weren't going to get such perks.

But the price of LCD panels plummeted by almost a third in 2008, according to Sweta Dash, an analyst at the market research firm iSuppli. Ms. Dash projects the trend is likely to continue for much of 2009. What's more, over the last year the display industry began to stretch its standard monitor sizes wider, making for screens that are ideal for working with two applications side by side (or for watching feature films). The roomy 22-inch widescreen monitor is fast becoming the industry's standard size; at the moment, you can buy one for less than \$200.

With that in mind, over the last few weeks I began a personal quest for multiple-monitor Zen. I got my hands on several displays and paired them up in every way possible way.

First I tried using two 22-inch [Dell](#) widescreen monitors side by side, creating one very wide screen, roughly 38 inches measured diagonally. Next, I rotated each display so that its long side ran vertically; this configuration allowed me to read a full document on the screen without scrolling. Copying one of the styles I saw at Google, I then placed one screen vertically and the other horizontally — imagine the letter T on its side, with the wide screen reserved for working with side-by-side windows, and the tall screen for focusing on a single, long document.

I also tried a couple configurations with my laptop: the laptop's screen plus one wide monitor, the laptop plus one tall one. Finally, I set up the Cadillac Escalade of displays, an enormous 30-inch widescreen monitor made by Gateway. This was the monitor a rap star might use — a screen so large it suggests you're overcompensating.

Whatever the configuration, my experience confirmed the researchers' findings: having a lot of screen space significantly raised my productivity.

As every office worker knows, trying to get anything done on a computer that's connected to the Internet can be a test of wills. On my old desktop monitor — at 19 inches square, it was the Honda Civic of displays — the Web was a wormhole that routinely pulled me off track. I'd switch over to a browser window to look something up, but as soon as I did so all traces of my work would disappear from the screen and I'd forget about the task at hand. A half hour later, I'd wake up from a deep browsing trance, wondering how I ever got to, say, a page recounting the history of Adidas, or some other topic having nothing at all to do with my work.

A huge desktop didn't remove all distractions, but it blunted their force. Now I could keep my e-mail and the Web open on one screen while my [Microsoft](#) Word document ran on another. This kept me on task. Even if I did go off to the Web, my document was always visible, beckoning me to come back to work.

But it wasn't just that multiple monitors reduced distractions; the setup also increased my efficiency when I did finally get around to working. I typically use two main programs when writing articles — Word and a text editor in which I've compiled all my notes. For instance, as I'm writing this story in Word, I'm switching back to my text editor to search for pertinent data. When I find that information, I select it, copy it and switch back to Word to paste it. This is a common office task, perhaps the main thing we do on computers. We search for raw data in our e-mail and on the Web, then transfer that info into Word documents, Excel spreadsheets and PowerPoint presentations.

But on a small monitor, this frequent task presents a cognitive challenge, says Jane Payfer, the chief marketing officer at Ergotron, the company that makes the excellent ergonomic monitor stands that I used to set up my displays in different ways. Every time you bring up a new window on your screen, your eyes and brain need to orient themselves to the new picture, a bit of mental processing that can slow you down. In a multimonitor setup, the brain rests easy: My notes now sit on one side of the dual screen while my Word document sits on the other. When I focus on one program, I don't lose my place in the other.

Of all the monitor configurations I tried, I was most impressed by the 30-inch Gateway display, which provided enough screen space to run five or more full-size windows at once. At close to \$1,000, though, displays of this size are prohibitively expensive for many people.

I found that two 22-inch monitors, one placed vertically and the other horizontally, was a much more cost-effective way to bolster my productivity. Be forewarned: to run this setup, you'll need a computer with a video card capable of connecting to two screens. This is a common feature on new machines, but if you have an older computer you'll most likely need to install a new video card to get it to work (I bought one for about \$100, and I managed to pop off my computer's case and plug in the new card in about 15 minutes).

Alternatively, you can buy a dual monitor adapter from Kensington. For \$120, it turns one of your computer's U.S.B. ports into a monitor adapter, saving you the trouble of opening your machine to insert a new card.

Whichever way you arrange it, rigging up two screens won't cost more than \$500. That's a lot cheaper than buying a superfast new computer. Your brain will thank you, too.