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When More Is More

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In the age of the iPhone and the BlackBerry, it's easy to forget that when it comes to computer displays, bigger really is better.

Whether you're an analyst running a spreadsheet, a call-center worker pulling together information from multiple sources, or an office worker juggling multiple tasks, more screen real estate can make the job easier and faster.

The Journal Report
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The advantages are simple: The more of your work that's visible, the less time needed to scroll through documents or to hunt among all open applications. With multiple screens,

you can separate different kinds of tasks, with one dedicated to work that requires more concentrated attention while another holds email, instant messaging and other interruptions. If email is open on a second monitor, messages can be checked at a glance with barely a break in work flow. A third can be used for research, checking databases or browsing the Web.

With more screen real estate, "you spend less time mucking around with windows management, and you spend more time making better decisions," says Mary Czerwinski, a research manager at Microsoft Research, the software giant's research and development arm.

More Software, Cheaper Monitors

Still, companies are only beginning to see the benefits of more and bigger monitors for their employees. Several recent developments have combined to spur the practice. Most built-in video cards can handle two monitors, so it isn't necessary to buy add-on cards. More important, the price of monitors has fallen sharply: While the older 19-inch cathode-ray displays used to sell for \$300 to \$400, a new 22-inch flat-panel liquid-crystal display can run about \$225. (Extra-large, high-resolution displays are still too expensive for every-desk use and are limited to high-value uses.)

At the same time, developers are beginning to create software that makes better use of multiple and bigger monitors. With Microsoft Corp.'s new Vista operating system, for instance, the taskbar that runs across the bottom of the screen can be extended across all the screens in use. What's more, it can be set up so that the icon for each application shows up on the display where it's open, reducing the confusion that comes with running several different programs each on different screens. (With earlier versions of Windows, the taskbar is squeezed onto the main screen so that each icon is barely visible when several applications are running.)

Multidisplay software from Nvidia Corp., a Santa Clara, Calif., maker of graphics chips, can also be set up to divide extra-large displays into separate sections, with each section acting almost like a separate monitor.

Martin Reynolds, a vice president at research firm Gartner Inc., goes with a four-monitor setup. In the middle of his desk is a high-resolution 24-inch display, which is his main work space for writing and editing text, drawing diagrams and cleaning up photos. To the right is a 20-inch monitor, rotated 90 degrees so that's in "portrait" mode, for researching items on the Web and instant messaging; the portrait setup reveals more of the content of a Web page with less scrolling up and down. To the left side is another 20-inch screen for viewing his email, calendar and contacts, and the fourth, the newest, which holds additional reference material, such as PDF files or long emails.

Even having just two monitors has a big impact, he says. The bigger main monitor reduces the amount of scrolling through spreadsheets, making more information available at a glance. And with documents open on multiple screens, it's easier to cut and paste information from one to another, reducing the need to print out a copy to work from.

Starting With Call Centers

An early corporate adopter was Paccar Inc., a commercial-truck maker based in Bellevue, Wash., which in 2001 saw multiple monitors as a way to improve employee efficiency and effectiveness. First, though, corporate planners had to identify where the addition of more monitors could have the biggest payoff. It needed to be a place where people have to make decisions quickly and need access to lots of information to make those decisions.

The answer: the call-center workers in the company's roadside-assistance program, which fields calls from stranded truckers, dispatches the necessary help and sometimes has to arrange alternative transportation and lodging for drivers. Call-center employees have to juggle a customer-information program, a Web application that maps nearby dealers, troubleshooting databases and other programs to quickly resolve the problem.

The call-center group saw a 10% productivity gain after a three-monitor system was installed, says Kyle Quinn, general manager and chief information officer in Paccar's information-technology division. The operators "can use the larger area to spread out all the information they need and see it more clearly," he says. "You can make better decisions."

Paccar has added multimonitor setups for material planners on its manufacturing lines, who have to manage demand for production parts using information on inventories inside and outside the company. Because of limited desk space and falling prices of displays, planners received two larger widescreen monitors instead of the three-screen setup in the call center. The ability to manage more rapidly changing information has produced a 10% to 20% boost in productivity, Mr. Quinn says.

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