Monitoring Your Office

ANYONE WHO USES A COMPUTER HAS AT LEAST ONE MONITOR. WHETHER BUILT IN TO A NOTEBOOK COMPUTER OR ALL-IN-ONE DEVICE OR AS A SEPARATE UNIT, THERE'S AT LEAST ONE. MAYBE YOU SHOULD HAVE A LARGER MONITOR OR MORE THAN ONE.

Those of us who spend a lot of time in front of a computer often prefer to have multiple monitors: One for the primary application and another for supplemental information or unrelated applications.
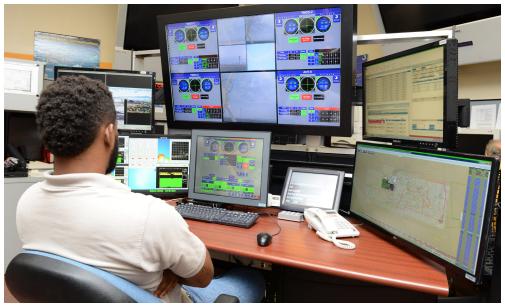
The Case for Multiple Monitors

BASIC APPLICATIONS SUCH AS WEB BROWSERS, EMAIL PROGRAMS, AND WORD PROCESSORS ARE DESIGNED FOR USE ON A SINGLE SCREEN, BUT COMPLEX APPLICATIONS CAN TAKE ADVANTAGE OF MORE THAN ONE.

Adobe Lightroom places most of the tools on the main monitor, but a second monitor can display a full-screen representation of the image being edited. Dreamweaver, the website development tool, can display code-view and design-view on one screen and list of files, resources, and assets on a second screen.

This kind of arrangement allows the primary work to be as large as possible while keeping essential tools in easy reach. Stock brokers, publication designers, and scientists sometimes have more than two monitors. Several editors I know use one screen for the document they're working on, a second screen for reference materials such as style guides and dictionaries, and a third screen for applications such as email and chat.

You may think, as I once did, that one large monitor can be used instead of two. I quickly discovered that this is not true. When the user puts a window in full-screen mode on a single monitor, it takes up the entire working surface. With two monitors, an application running in full-screen mode leaves the second monitor

At the Air Force's Ridley Mission Control Center, one operator watches up to 4 tracking systems. Few people need this many screens.
U.S. Air Force photo by Kenji Thuloweit

untouched. When I described this problem to my younger daughter, the graphic designer, I believe she was thinking "you idiot" even though she was far too polite to say it.

Other Questions to Answer

ALTHOUGH DETERMINING HOW MANY MONITORS YOU NEED IS AN IMPORTANT FIRST QUESTION, SEVERAL OTHER DECISIONS NEED TO BE MADE.

Once you've determined how many monitors will work best for your situation, there are two other key questions: How large should the monitors be and what resolution is best? You may also wonder if the monitors should be the same size (for most people they should) and

whether they should be the same brand and model (with few exceptions, they should be).

I have used 27-inch monitors with 1920×1080 resolution for several years. One of the monitors began failing in June, so I decided to replace both monitors in July. The physical size of the monitors suited my workspace, but I wondered if increasing the resolution to 2560×1440 would be wise. Monitor size is measured diagonally, but resolution is measured vertically and horizontally.

When determining the proper size for monitors, keep in mind that the center of the workspace is not where the dividing line between the monitors should be. One monitor should be directly in front of you. That's where

you'll be looking most of the time. The monitor that contains secondary applications or reference materials can then be offset to the left or right.

Resolution is Important, Too

RESOLUTION IS MEASURED IN THE NUMBER OF PIXELS DISPLAYED VERTICALLY AND HORIZONTALLY. MORE PIXELS YIELD SHARPER IMAGES, BUT SMALLER TEXT.

The monitors I needed to replace were Full High Definition (FHD) monitors with 1920×1080-pixel resolution. Although I was satisfied with FHD, the Quad High Definition (QHD) specification looked like a better choice because photos would be displayed at higher resolution on a QHD screen's 2560×1440 pixels. This also meant that text would be smaller.

There are many high-definition video standards. Several notebook computer manufacturers offer 3200×1800-pixel resolution on built-in monitors. Some of Microsoft's Surface Pro computers have 4500×3000-pixel resolution. The problem with these resolutions on relatively small screens is that text, although astonishingly clear and crisp, is so small that it's unreadable.

My primary computer is a Lenovo P50 notebook with a 15.6-inch screen that offers 4K resolution (3840×2160). As wonderful as that sounds, text is too small to read. In fact, that's why I run the computer with the case closed and view only the external monitors.

If you look hard enough and have enough money, you'll find monitors with Ultra-Wide 10K specification displays (10,240 pixels wide and 4320 pixels tall). Realistically, though, monitor buyers today should probably stick with 4K monitors or less. My choice (Quad HD) seems to be the current sweet spot for resolution and price.

And Finally, Cost

ANOTHER QUESTION INVOLVES HOW MUCH TO SPEND. SOME MONITORS COST LITTLE MORE THAN $100, WHILE OTHERS SELL FOR 20 TIMES THAT AMOUNT OR EVEN MORE.

I do a lot of work with photographs, so it's important for color to be consistent. The best consistency requires monitors that cost $2000 each; my target was *good enough* consistency, the kind that can be achieved with monitors in the sub-$300 range.

If you decide to spend $2000 per monitor, you'll also need to purchase an expensive color management system that you'll have to learn how to use. Most of us don't need that kind of quality. An inexpensive X-Rite Color Munki color management system is sufficient for my color management needs and I had already been using it with my previous monitors.

My Solution

I PURCHASED TWO AOC Q2781PQ 27-INCH WQHD 60HZ MONITORS WITH 2560×1440 RESOLUTION.

They're good but not exceptional and, because the technology is several years old, the price has dropped by about 40%.

If you still have just a single monitor, perhaps now is a good time to think about a second monitor. Not everybody needs two monitors, though. If you spend little time working with a computer, a single monitor is probably enough. That said, nearly everyone I know who has tried adding a second monitor has no desire to go back to just one.

In the December issue, we'll review some tips on monitor placement and ergonomic considerations. Ω

A Scourge Returns

AFTER BEING ABSENT AND PRESUMED DEAD, FAKE DELIVERY FAILURE SCAMS ARE BACK. FORTUNATELY, THEY'RE EASY TO IDENTIFY AND IGNORE.

Instead of being sent to you, the message will show "undisclosed recipients" in the "to" section.

There will be an attachment. The presence of any attachment makes the message suspicious.

The salutation won't be correct. A legitimate message about a package you sent will address you by name, not as "Sir/Madam".

The text of the message may show that it has been written by someone who doesn't speak English as a first language.

Watch for strange typefaces (Comic Sans would be a giveaway) and odd capitalization, too.

The first rule of the internet continues to be *Trust Nothing!* Ω