



Trends and Issues Driving the Adoption of WLED monitors

Riding out the rough economy of the last few years, many organizations have held off IT equipment purchases by squeezing a few more years of life out of their installed base.

This is particularly true with desktop monitors. Consequently, many older LCD¹ monitors are not keeping up with usage demands and often inhibit worker productivity. Eye strain with the older monitors has always been a problem, but now it is even more of an issue, because of the aging workforce. These were some of the key findings of a Ziff Davis Enterprise study on monitor usage trends.

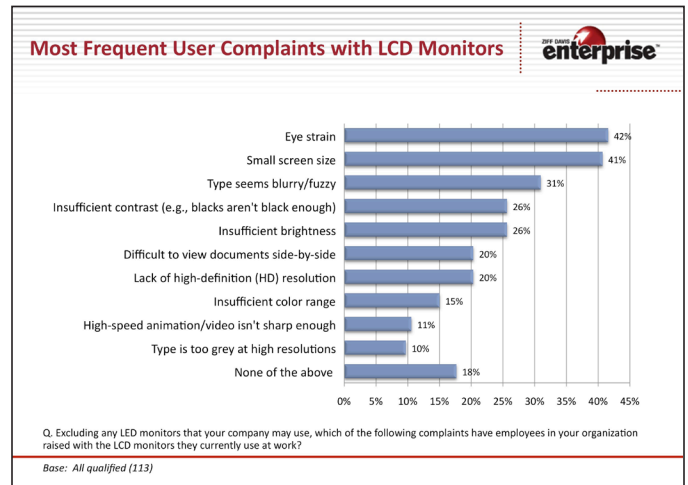
Specifically, the study examined trends and issues associated with using LCD monitors versus newer, wide-screen LED-backlit (WLED) monitors. The study surveyed 113 IT decision makers who are involved in purchase or maintenance of monitors at work.

Looks Count

The most compelling statistic from the survey is how respondents viewed LEDs versus LCDs. Eighty percent of those who had a chance to compare the two side-by-side said LED monitor displays were superior to LCDs when comparing several key factors.

That 80 percent number is quite a telling stat, because respondents had very high expectations about LED monitors. More than two-thirds of the respondents said they would expect LED displays to be brighter and offer better contrast when compared to LCDs; about half expected LED monitors to deliver better color ranges and have sharper-appearing type.

The better image quality of LED monitors in general, when combined with the wider viewing area afforded by WLEDs



in particular, offer a number of productivity-boosting benefits that can help justify the replacement of older LCDs, even if budgets remain tight.

In fact, 58 percent of the respondents said that the impact of a monitor on employee productivity is a top factor when purchasing a new monitor. For example, by virtue of its wide-screen format and large aspect ratio, a WLED monitor will allow side-by-side page viewing. This makes it easier to compare documents. Seeing documents side-by-side also simplifies the common process of making changes in one document that requires information from another.

The wider-screen, higher-quality display of a WLED also makes it easier to work with large spreadsheets. This can be a significant boon for productivity since most companies today are dealing with larger data sets when making decisions. With a WLED monitor, users can see more of a spreadsheet displayed in a readable font size (which helps avoid eye strain).

1. For purposes of this study "LCD" refers to older monitors whose screens are typically lit with CCFL technology, whereas "WLED" denotes newer monitors whose screens are lit with LED technology.



Another area where WLEDs can help improve productivity is with video viewing. Video is increasingly being used in offices to train workers, provide information on-demand, and improve collaboration through videoconferencing services like Skype.

Online video viewing in general is exploding. According to a 2010 *Wall Street Journal* article, video traffic became the number one consumer of global internet bandwidth at the end of 2010. To put the video-at-work issue into perspective, consider that video streaming from news sources and companies like Brightcove and TubeMogul (which host business videos) starts growing about noon and holds steady from 2 p.m. to midnight, according to a 2010 GigaOm article. That means office workers view about the same amount of online video at work as they do at home in the evenings – which has traditionally been considered prime time for online video viewership.

The problem with watching videos on older LCD monitors is that they offer small viewing areas and lower-quality images. WLEDs offer improved image quality and allow a suitably-sized video window to be displayed. Better still for productivity, that video window can be displayed alongside documents that often need to be viewed at the same time.

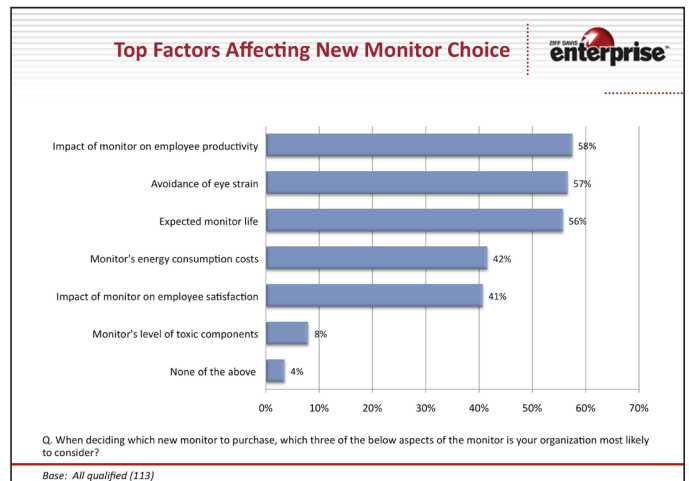
The survey also found that justification for buying WLEDs can be based on softer factors. While not directly related to the bottom line, many survey respondents expect that WLEDs would lead to improved employee satisfaction and the avoidance of eye strain.

Age Matters

Display quality and eye strain are naturally related. And both are related to the age of the monitor, as well as the increasing average age of today's workforce.

Specifically, due to tight budgets, many organizations have held off on IT equipment purchases over the last few years. The survey confirms the extent of the problem when it comes to the installed base of monitors.

Fifty-eight percent of the survey respondents said that at least half of their LCD monitors are more than three and a half years old. And about a third (31 percent) said that at least 70 percent of their monitors were more than three and a half years old.



That means a significant portion of the installed base includes smaller (typically 17-inch and 19-inch models) LCD monitors with a now increasingly outdated 5:4 aspect ratio format.

Survey respondents noted that workers using these older LCD monitors registered a number of common complaints. About 40 percent of the respondents said they received complaints about eye strain and small screen size. Other complaints included comments that the type seemed blurry or fuzzy, there was insufficient contrast and brightness, and it was hard to view documents side-by-side.

The second age-related issue that organizations must deal with is the age of today's workforce. As baby boomers grow older, the average worker is growing older, too. According to the U.S. Bureau of Labor Statistics, the portion of workers over the age of 55 has been and will continue to increase steadily from 12 percent in 2000 to 20 percent in 2025.

A worker's vision frequently changes with age. For example, a 60-year-old worker requires eight times the amount of light to see as clearly as a 20-year-old, according to the California State Compensation Insurance Fund.

This can have a significant impact on productivity, since employees today must work with more rich-media applications and much larger data sets than ever before. To do so, they need larger-sized monitors, with higher, more suitable aspect ratios, that can display information at higher brightness and with better resolution than afforded by older LCD monitors.

2. "Cisco Says Data Traffic From Video Will Eclipse File Sharing," *Wall Street Journal*, June 2, 2010
http://blogs.wsj.com/digits/2010/06/02/cisco-says-data-traffic-from-video-will-eclipse-file-sharing/?mod=rss_WSJBlog&mod=



Dell as Your Technology Partner

As these survey results indicate, now is the right time to replace aging LCD monitors with new WLED monitors. This is an area where Dell can help.

To satisfy user needs and improve productivity, Dell offers a wide range of WLED monitors for today's workforce. These monitors offer the large display area needed in business today. They also provide the brightness and resolution to deliver a highly satisfactory user experience, while helping to avoid eye strain and fatigue. In addition to these benefits, WLEDs are more energy-efficient than older LCDs. So over time, a company making the switch would save money on electricity.

With its selection of different monitors, Dell gives organizations the flexibility to match the right WLED monitor to each worker's job requirements.

Additionally, Dell's world-class logistics and fulfillment services make sure that organizations can get WLED monitors delivered when they need them.

Dell services can help ensure companies get a complete solution where the WLED monitors complement the users' computers. And if problems arise, Dell serves as the single point of contact to resolve any issues and get users back to work.

Dell also addresses the one negative factor about LEDs that emerged in the survey. According to the respondents, the main disadvantage to buying an LED back-lit monitor was its cost. About two-thirds of the respondents perceived WLED monitors, in general, as being too expensive.

Respondents likely got this impression from their experiences with the LCD-versus-LED pricing of televisions. In that market, there is certainly a premium to be paid for LED systems.

However, this is not the case with Dell monitors. Dell converted from LCD monitors using CCFL (cold-cathode fluorescent lamps) backlighting to the more improved WLED monitors without raising prices. As a result, companies should not hesitate to investigate and procure Dell WLED monitors based on price concerns.



To learn more about Dell monitors for your organization, visit www.Dell.com/monitors