



Sizing up screen differences

What is the difference between square and widescreen monitors?

Aspect ratios 101

Before we discuss the differences between square and widescreen monitors, it is important to understand how a monitor is measured. Monitors can be measured several ways and one of them is by aspect ratio. The aspect ratio of an image is the ratio of the width of the image to its height. Sample “square” aspect ratios (shown below) can be described as **4:3** and **5:4**, while sample “widescreen” aspect ratios are **16:9** and **16:10**.

Figure 1 Sample aspect ratios ranging from 4:3 to 16:10 displays screen resolutions and ranges of viewable image areas.



A little history behind transition

Historically, computer displays, like most televisions, used a standard aspect ratio of 4:3, which was the also original standard for movies. This meant that the ratio of the width of the display screen to the height was 4 to 3. But as television makers started to design “high-definition” TVs (HDTVs) — with new standards built around a wider aspect ratio to better accommodate modern film, and with the advent of digital broadcasting in television — the movement from square (4:3 and 5:4) to widescreen (16:9 and 16:10) began. You may have noticed this transition as it first started to appear in televisions, then in laptops and later in standalone monitors. In fact, soon it may be difficult to find a television or computer screen on the market that isn’t widescreen.



More benefits of widescreen

Since panel makers will likely eventually transition to widescreen displays, it may be beneficial to understand the benefits of wide aspect ratios with regards to business productivity. Possibly the most obvious benefit is that it makes viewing high definition (HD) imagery an extremely robust experience — seemingly 'bringing life' to the images that are displayed on a screen.

But why do we need widescreen for HD? This is because the 16:9 aspect ratio is optimized towards today's HD content and is also the standard for HDTV. In fact, movies have always been in widescreen as they can show more imagery in a wide ratio vs. a square ratio. As well, although this may have little to do with most users' occupations, video games are now in HD, so in order to correctly experience the graphics on a computer game, a user must have an HD 16:9 widescreen monitor.

Nevertheless, even if you are not in the video or gaming industry, there are many other benefits to using a widescreen vs. a square monitor. For example, users can view more with widescreen due to higher resolutions and larger viewable areas, helping maximize productivity. Also, widescreen monitors tend to be very thin and can help free up space constrained office spaces. As well, because widescreen ratios match current high definition standards, views of imagery appear correctly and eliminate large black bars at the top and bottom of the screen. Additional benefits can be found with the 16:10 screen shots below.

Figure 2 The ability for multiple programs to be displayed on the screen at once eliminates the need to toggle between applications and helps increase productivity.

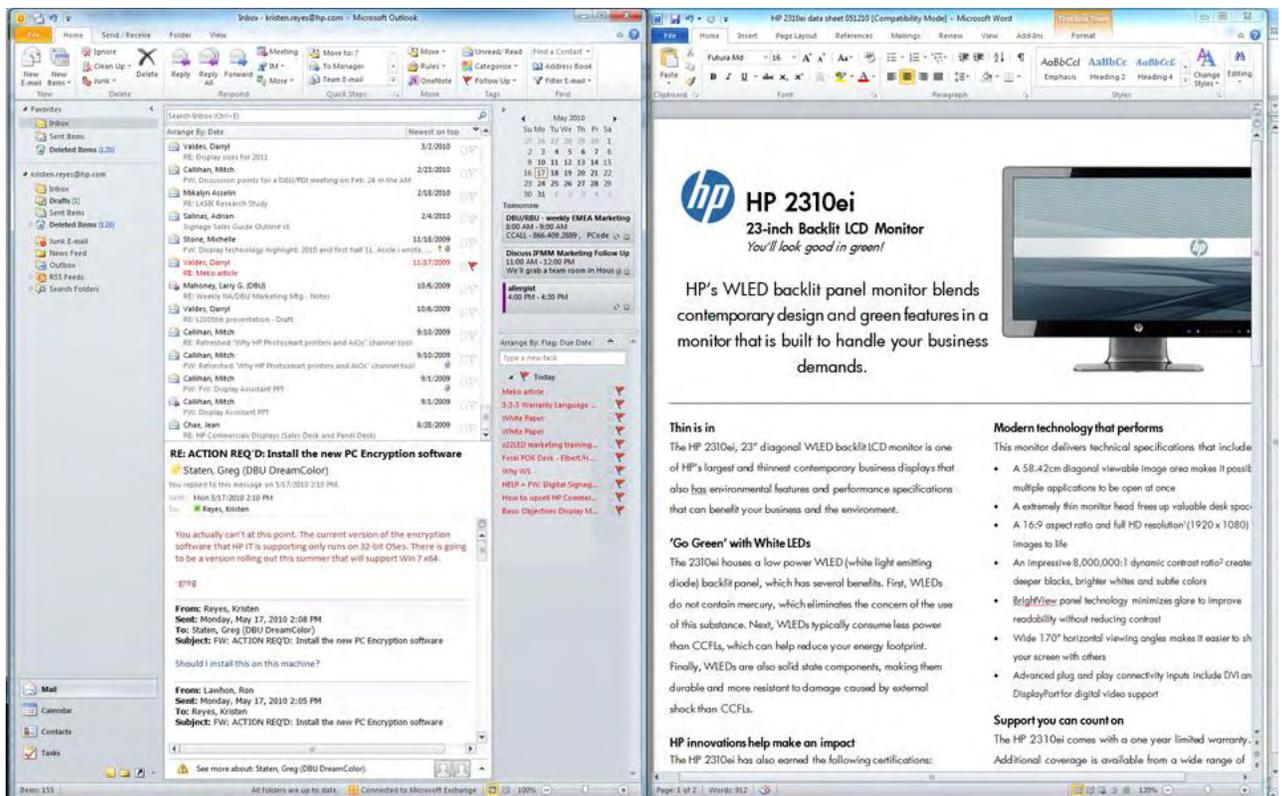




Figure 3 Compatibility with Windows® 7 Aero Snap makes it possible to snap two full standard letter pages side by side, making documentation reviews much more convenient and enabling more efficient multi-tasking vs. viewing one document at a time and tabbing back and forth between applications on the screen.

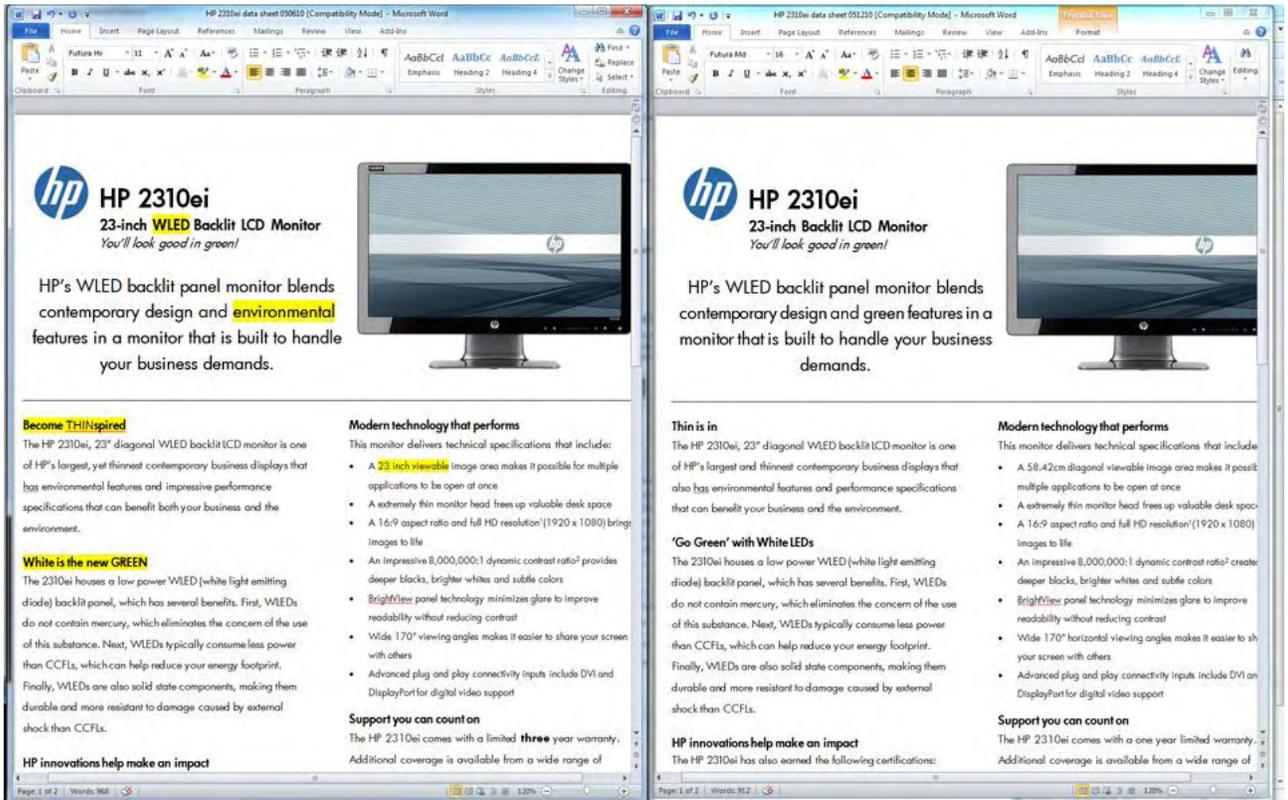


Figure 4 Displays of large drawings and application menus can be viewed at the same time, eliminating the need to minimize the drawing size to fit menus on an artboard. This also enables the designer to work in higher resolutions and see more pixels on the screen, which helps produce more accurate and detailed imagery.

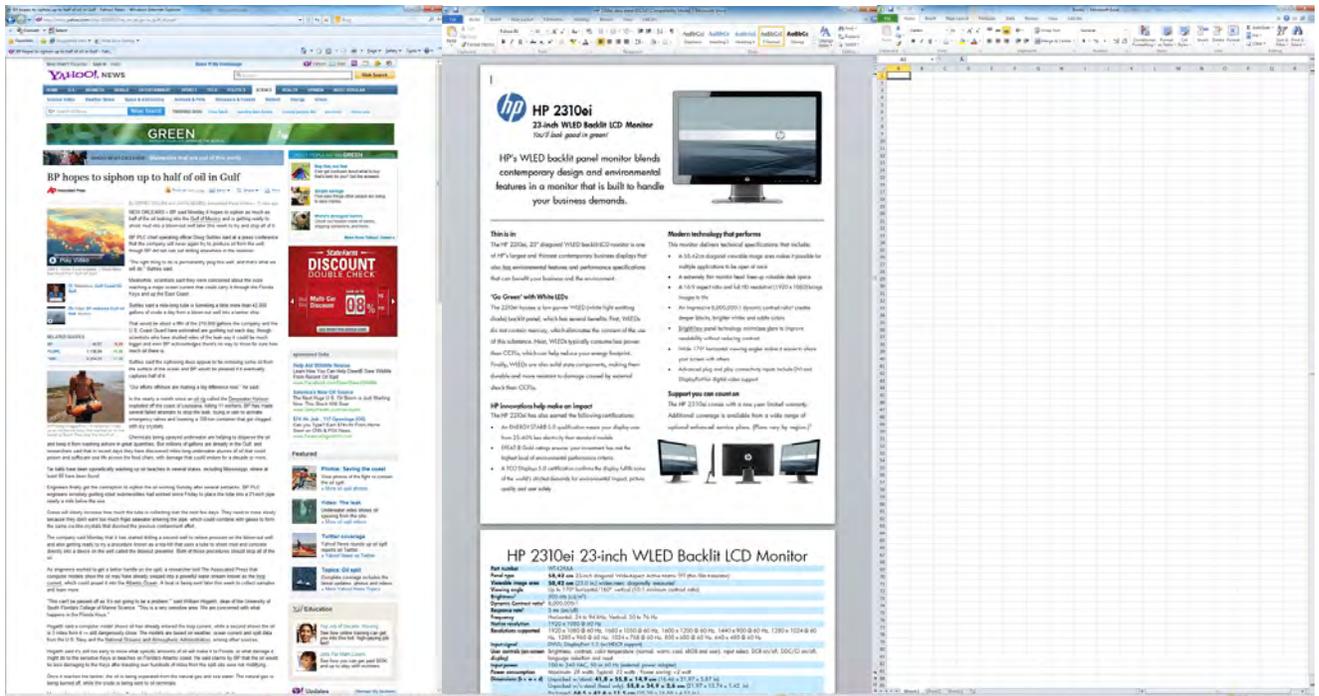




Figure 5 Extra real estate on the left and right sides of the screen provides wider views of programs such as Microsoft® Excel®, Outlook®, and PPT®. This can help reduce input errors and provide a more robust user experience. Note the major increase in viewable image available in Excel® and Outlook® on a 16:10 screen compared to a 4:3.



Figure 6 Rotate the screen into a vertical position to enable portrait views of the screen. This feature is perfect for lengthy documents, web page articles, email strings, and detailed spreadsheets because it minimizes the need for perpendicular scrolling.





Support you can count on

When the time comes to upgrade or replace your monitor, regardless of the screen size you decide to choose, know that HP will be there with the right products and support you need to succeed in your business environment. All HP monitors come with a minimum standard one year limited warranty that includes parts, labor, toll-free technical support and real-time chat, while many models come with a standard three year limited warranty. Certain restrictions and exclusions apply*. For HP business monitors detailed product information and various screen size availability, visit us online at www.hp.com/go/monitors.

© 2010 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. . The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. Microsoft® and Windows® are trademarks of the Microsoft® group of companies. For more information on HP monitors, visit www.hp.com/go/monitors.

*HP Care Pack Services extend service contracts beyond the standard warranties. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts from date of hardware purchase. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at www.hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at www.hp.com/hps/carepack

JUNE 2010