



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. Aspect ratios (shown below) can be described as 4:3 and 5:4, which are square-like, and 16:9 and 16:10, which are widescreen-like.

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 television makers started to design "high definition" televisions with new standards built around a wider aspect ratio to better accommodate 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 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 monitor that is not widescreen.



More benefits of widescreen

Since panel makers will likely eventually transition to widescreen displays it may be beneficial to understand the benefits of the aspect ratio with regards to business productivity. Possibly the most obvious benefits that it makes viewing high definition (HD) imagery an extremely robust experience. g Y Y a] b [' m ' D to the images that are displayed on screen

But why do we need widescreen for HD? This is because the 16:9 aspect ratio is optimized towards high definition content and is also the standard for HDTV. In fact, movies have always been in widescreen as they can show more imagery in a wider ratio. As well, although this may have little to do with X c ' k] h \ ' a occupations video games are now in HD, so in order to correctly experience the graphics on a computer game a user must have a HD 16:9 widescreen monitor

Nevertheless even if you are not in the video 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.

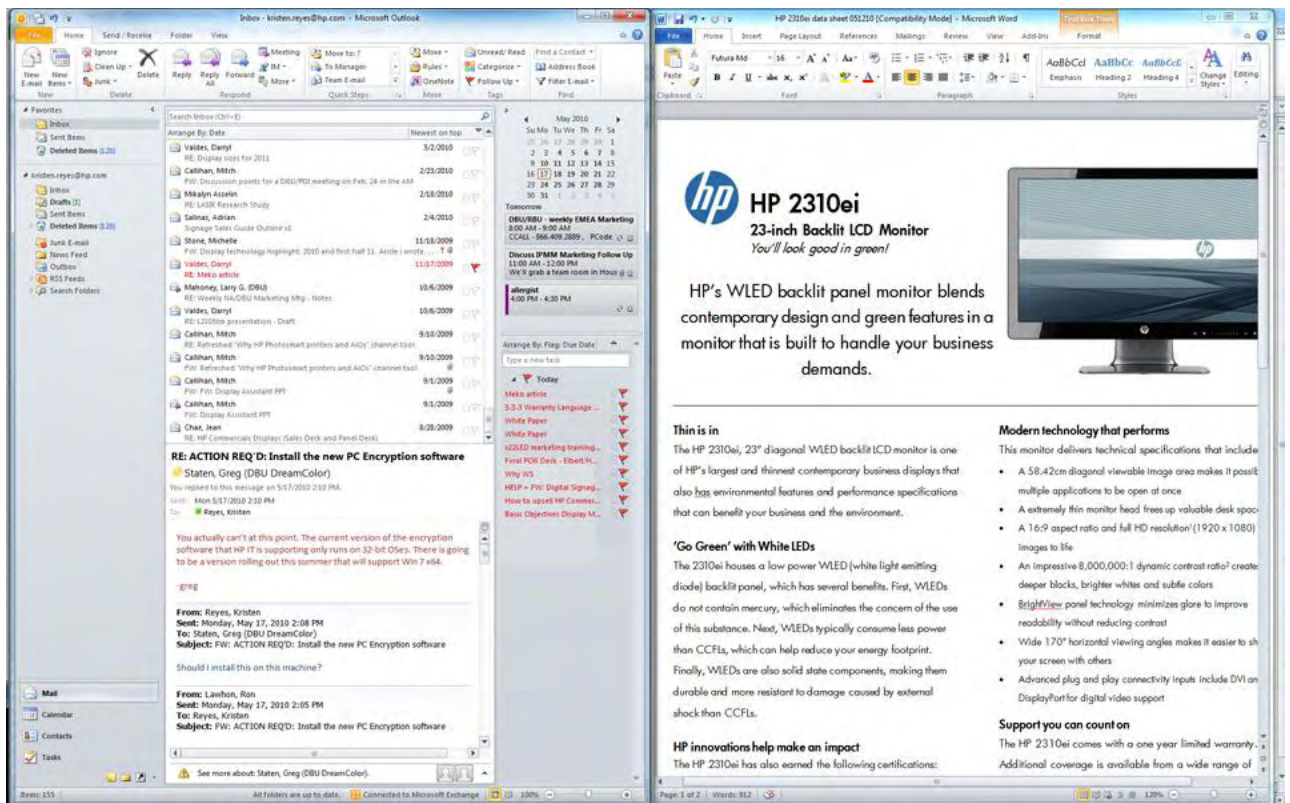




Figure 3 Compatibility with Windows 7 Aero Snap makes it possible to snap two full standard letter pages side by side, making documentation reviews much more convenient and enabling more efficient multi-tasking. Viewing one document at a time and tabbing back and forth between applications on the screen.

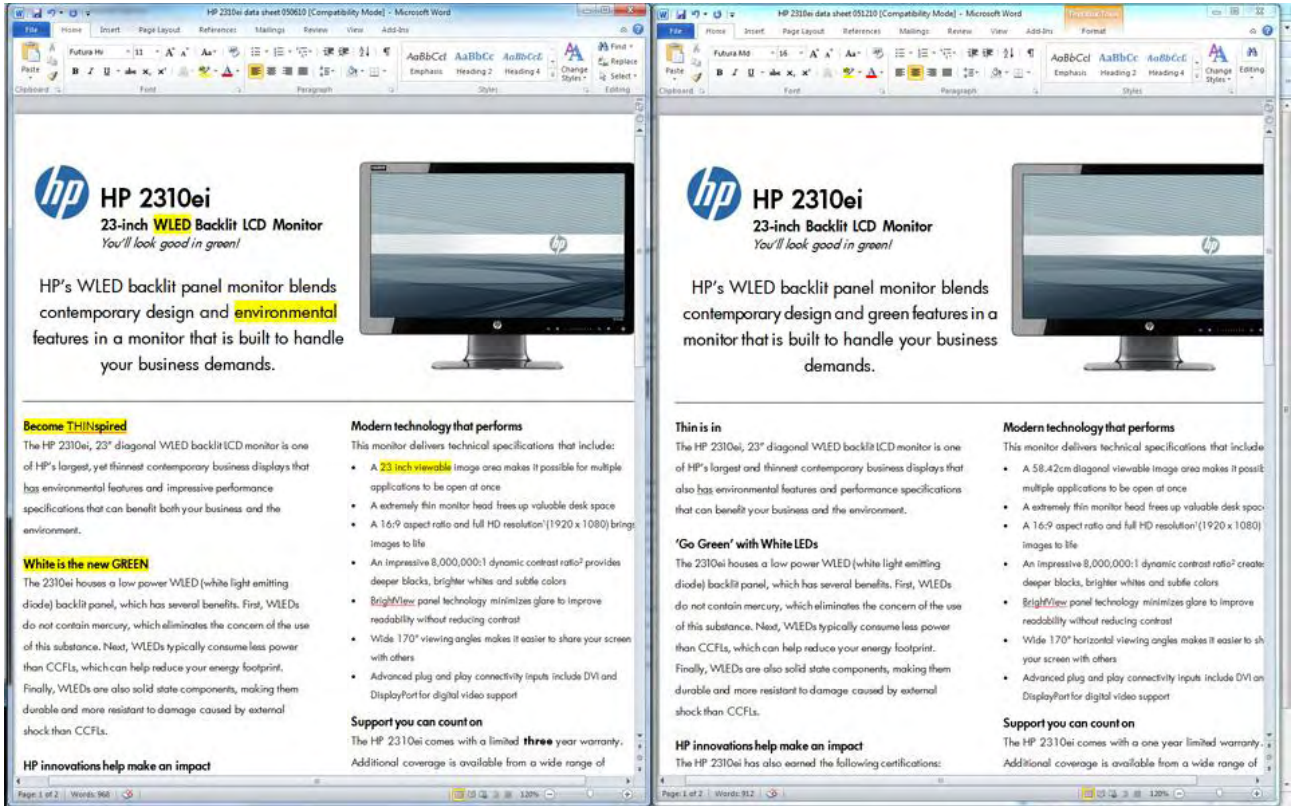


Figure 4 Displays of large drawings and application menus can be viewed at the same time, eliminating the need to minimize the drawing size to fit menus on an artboard. This allows the designer to work in higher resolutions and see more pixels on the screen, which helps produce more accurate and detailed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





Figure 5 Extra real estate on the left and right sides of the screen provides views of programs such as Microsoft Excel®, Outlook®, and PowerPoint®. 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.

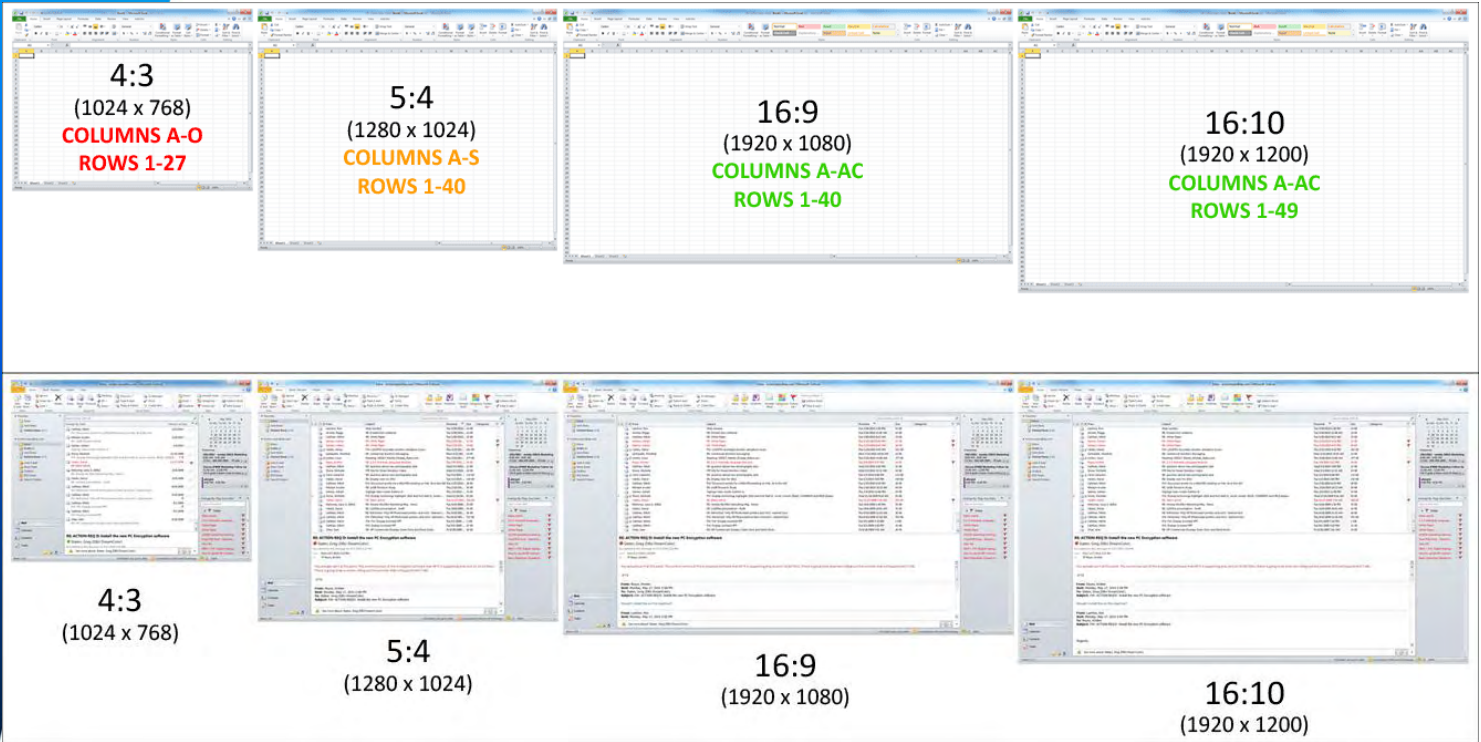
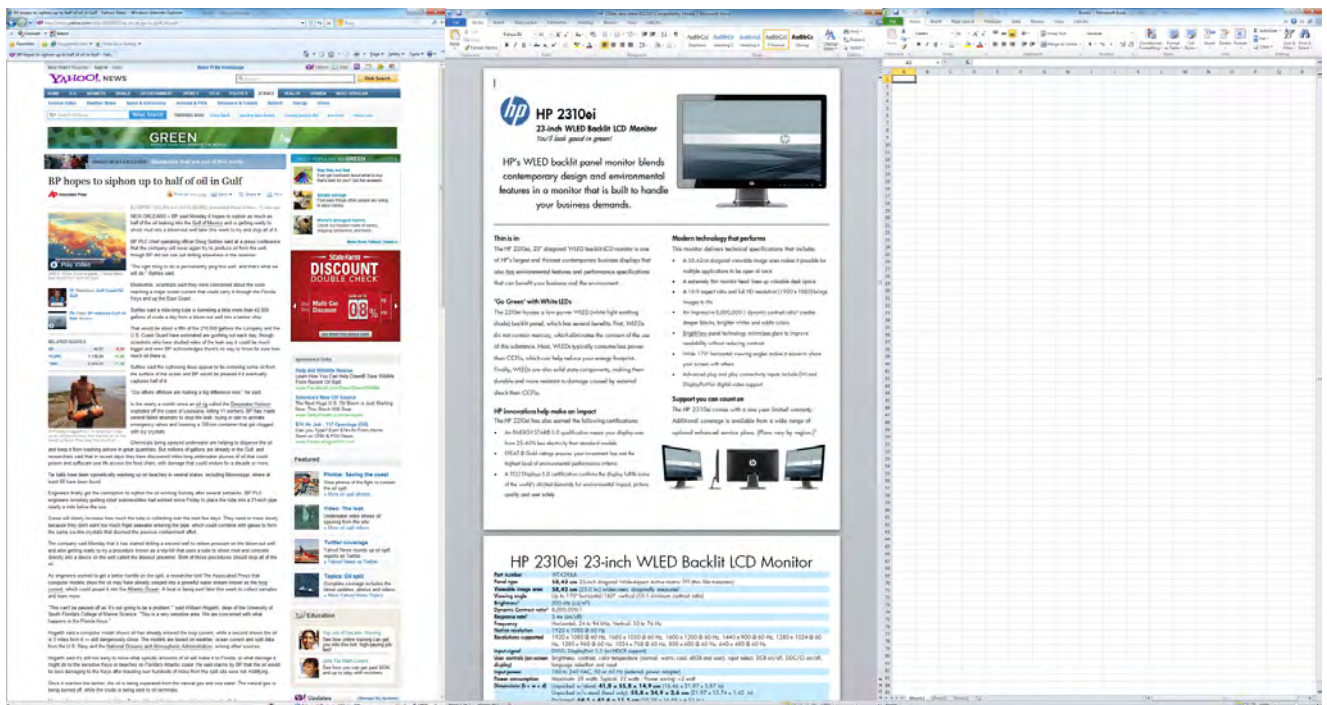


Figure 6 Rotate the screen into a vertical position to enable portrait of the screen. This feature is perfect for lengthy documents, web page articles, email strings, and detailed spreadsheets. It minimizes the need for perpendicular scrolling. (Available on select models)





Support you can count on

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