

## Cadalyst Pro Tips #1

# TIME TO BUY A NEW MONITOR for

# CAD?

Use these tips  
to make the  
best choice.



## HOW MANY AND HOW BIG?

Three 25" monitors recommended (22" minimum), with 16:9 or 16:10 aspect ratio.

**WHY?** Gaining screen real estate yields immediate benefits in CAD productivity. With large, FullHD screens so inexpensive, and with virtually all workstations now supporting at least three, why do with less?



## WHAT RESOLUTION?

1,920 x 1,080 (minimum) up to 4K (around 3,840 x 2,160).

**WHY?** More lines and pixels yield better resolution. 1,920 x 1,080 (a.k.a. FullHD) is inexpensive and satisfies most eyes up to around 25" screen sizes. For larger displays, or for high visual precision demands, consider 2,560 x 1,600, 3,440 x 1,440, or the emerging 4K (confirm that your system's video interfaces support higher resolutions).



## WHAT IS A GOOD RESPONSE TIME?

5–7ms.

**WHY?** LCD response is the amount of time it takes for the liquid crystals in the panel to re-

align for the next frame's image. The quicker the response time, the higher the achievable frame rate (Hz) and the smoother and snappier the visual performance. Don't settle for less than 7 ms, as supporting displays are both economical and plentiful. Response times can be 2 ms or so, but because most humans can't detect or appreciate more than 150 Hz (or less than around 7 ms), there's not a compelling reason to spend the money to push for faster.



## WHAT KIND OF PANEL? VIEWING ANGLE?

IPS (in-plane switching) displays.

**WHY?** IPS panels are far superior for group viewing, delivering more accurate colors from a wider viewing angle (typically 178-degrees) than conventional TN LCD.



## WHAT ABOUT BACKLIGHTING AND BRIGHTNESS?

LED (light-emitting diode) backlight; look for range of 250 cd/m<sup>2</sup> and 350 cd/m<sup>2</sup> with ability to turn down to 50–100 cd/m<sup>2</sup>.

**WHY?** With LED backlit screens so plentiful and economical, there's no reason to go back to old CCFL (cold-cathode fluorescent lamps).

LEDs tend to be brighter, slimmer, more reliable, and more energy efficient than CCFL.



## CONFIRM THE PORTS WORK FOR YOU!

Make sure the video ports on your system match the connectors the monitor supports (or that adapters are available).

**WHY?** Ideally, if your monitor supports DisplayPort, HDMI, and DVI, it should work in just about any scenario, both today and the foreseeable future — no adapters necessary.



## WHAT'S A GOOD WARRANTY?

Three years covering parts and labor.

**WHY?** Warranties vary from company to company. Hardware failures are not uncommon, so be sure you understand your warranty and are satisfied with it before your purchase.

For more detailed information,  
read the full Cadalyst Labs Report:

## MONITORS FOR CAD

by Curt Moreno.

## PROFESSIONAL DISPLAY RESOURCES

*Cadalyst:* All the latest reviews, articles, news about displays from Cadalyst.

*4K Offers More — Here's What You've Been Missing* by Matthew Mangum, Dell.

*How Can a Screen Sense Touch? A Basic Understanding of Touch Panels*, Eizo.

*What To Do When Your LCD Monitor Doesn't Light Up* by Chris Downey, Dell.

*Why Do We Experience Eye Fatigue When Using a Computer?*, Eizo.

*Why Migrate to IPS Panels* by Kevin Christopherson, NEC Display.

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