

RANDOM

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COMMUNICATIONS WITH A PURPOSE

THOUGHTS

Do you know where your website visitors come from?

Most websites run on servers that generate log files to capture some information about visitors. One bit of information is the IP address, which “uniquely” identifies the computer. So we should be able to find out exactly who visits our websites, shouldn't we?

As is usually the case, it's not quite that simple. As I write this article, I have 2 IP addresses: One identifies my computer to the router/firewall that's connected to the cable modem and one identifies the router/firewall to the rest of the world.

If I run the command “ipconfig /all”, I'll see that my current (internal) IP address is 192.168.x.x (that's a partial address). The router shows my external IP address to be 69.47.x.x (again, a partial address). By the time you read this article, both will have changed because both are dynamic.

Once someone know the external IP address, it's possible to find out who owns it. Using a procedure called reverse DNS, anybody can see that Wide Open West owns 69.47.x.x addresses, but that's where the trail stops unless you have a subpoena.

Wide Open West will know that I was using 69.47.233.163 at 8:39 on Saturday morning, October 2, 2004. That information will be in one of their log files, but the information is private without a court order.

At odds again: Security and privacy

Security and privacy are sometimes at odds with each other. We like both, but they must be in balance; too much security isn't necessarily a good thing. Neither is too much privacy. If you're a merchant who accepts credit cards on the Internet, you might reasonably want to know if the person who claims to be in Columbus is actually in Indonesia. Or if you run a business that serves customers only in South Dakota and Montana, you might want to know how many visitors come to the site from other states.

If your visitor arrives from a large ISP (AOL, for example) you'll know the IP address belongs to AOL, but is the user in San Francisco, Boise, Toronto, Miami, or Madrid? That information is harder to obtain.

A solution?

IP2Location.com provides a database that can identify the location of a visitor by matching an incoming IP address to the country, region, state, city, latitude, longitude, and Internet service provider who owns it.

Knowing this information in real time allows the display of localized content and may help prevent fraud.

The IP2Location database contains more than 2.5 million records and the company claims a 95% matching accuracy at the **country** level. They don't mention accuracy at the state or city level, but it clearly will be less than that.

Where am I really?

When I visited www.ip2location.com, the site told me that I was in Michigan, even though what I could see outside the window looked pretty much like the Worthington scene I'm familiar with.

“Your IP Address is 69.47.233.163,” it told me, and went on

to say that I'm “located in (US) United States, Michigan, Dearborn.” Why do I get the feeling that I'm listening to Yoda? “Your latitude/longitude is 42.3165° Latitude and -83.205° Longitude,” it said, and “you're connect-

ing to the Internet through WideOpenWest Michigan.” Well, not exactly. I'm about 186 miles from Dearborn.

Without leaving the house, I connected to the computer in my office and used it to view the ip2location website. After telling me my office IP address, it broke into Yoda-speak again to give me my location: “You're located in (US) United States, Ohio, Columbus. Your latitude/longitude is 39.986° Latitude and -82.988° Longitude.

Close! If I'd actually been in the office, the result would have been impressive. The actual location of my office is 39.972892 latitude and -083.077034 longitude. Because I'm at home, it missed by about 15 miles and even the “precise” location is probably a telephone office. Still, not bad!

The database costs \$500 per year, and includes monthly updates. There are other costs involved, though. If you're not running your own server in a dedicated data center, you'll at least need to work with your Internet presence provider to determine how (or whether) you can implement the application on your website. **B**

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Trying 69.47.233.163 at ARIN
Trying 69.47.233 at ARIN
WideOpenWest LLC WIDEOPENWEST (NET-69-47-0-0-1)
69.47.0.0 - 69.47.255.255
WIDEOPENWEST MICHIGAN WOW-MICH-6-192 (NET-69-47-192-0-1)
69.47.192.0 - 69.47.255.255
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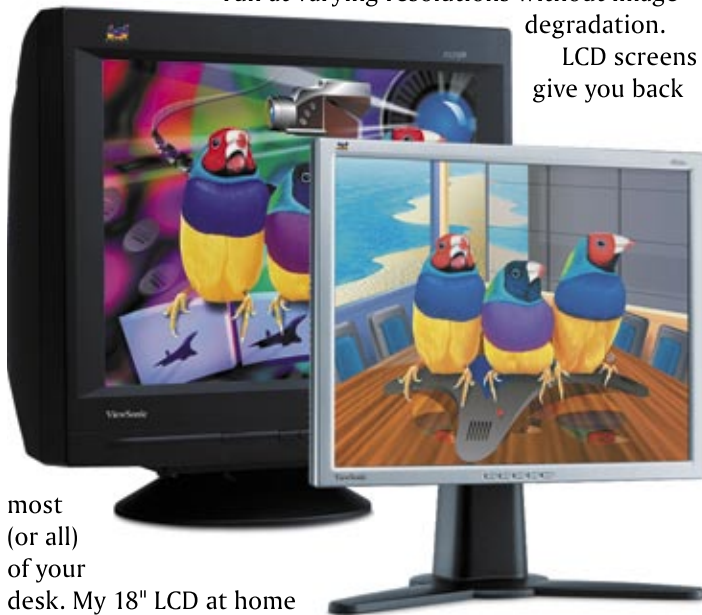
Which monitor is best?

I received a question from someone who's thinking about buying a new monitor: "I'm wondering what kind of monitor would be best: LCD or CRT flat screen; a rotating monitor or one that is large enough so ability to rotate doesn't matter."

My useless response: Only you can define what's best.

My more useful response: Flat-screen CRTs cost a lot less, but take more space and give off a lot more heat (along with various kinds of electronic signals that, depending on who's talking, are either harmless or will kill you. CRTs emit UV, which can make your eyes tired unless you wear glass glasses or plastic glasses with UV coating. Standard CRTs can also be run at varying resolutions without image degradation.

LCD screens give you back



most (or all) of your desk. My 18" LCD at home is mounted on an articulating arm that takes up a 1.5" diagonal circle on the desk (where the bolt goes through). Flicker is not a problem, but these screens don't do as well for rapidly changing images (games, video, rapidly scrolling documents). They're also designed to run at their "native resolution" and, while most will run at other resolutions, the text will be fuzzy.

LCDs are digital internally and your computer processes video digitally, but the output is probably analog. For the very best (sharpest) video, you would want to replace the video card with a digital-output video card and purchase a more expensive digital monitor. I have a good analog video card and use an analog-input LCD. My eyes are happy.

So if you need various resolutions, the ability to play shoot-'em-up games, or want to spend less, CRTs are better. If you'd like to conserve space and reduce heat, LCDs are better. LCDs also consume less electricity, but probably not enough less to let you quickly recover the higher cost of buying the monitor.

Either kind of monitor will display a sharp image, so make sure you go to a store that sells the monitors to look at them before you buy. This is the only way to understand the differences as they apply to you.

CRTs have a refresh rate (stated in Hertz). The rate depends on the video subsystem in the computer and the monitor. Old

monitors used to refresh at 60Hz and many people found that the flickering gave them headaches.

According to Viewsonic, women are more likely to notice the flicker than men. Most men stop seeing it when the refresh rate is 70Hz or higher. Some women can still see it at 80Hz, but virtually nobody reports being able to see flicker when refresh is 85Hz or faster. Some monitors exceed 100Hz.

LCDs don't care about the refresh rate. The video subsystem can be set at 60Hz and you won't see any flicker because of the way the monitor works. This is what works against the monitor in displaying video that moves, by the way, so it's not universally good or bad – it just is.

When I started writing this report, I had an aging, fuzzy CRT at the office. I could slide 2 feet to the right and sit in front of my Mac Powerbook's bright, clear LCD screen. A solution such as the one I have at home (the 18" LCD mounted on an articulating arm) was appealing, but I wanted the largest possible screen.

The articulating arm shown here is not the one I have at home. This is an arm that's been designed for the heaviest of LCDs. One welcome aspect of buying an articulating arm is the fact that most have a mounting plate designed to work with a VESA mounting panel that's on the back of virtually every LCD monitor.

The aging, fuzzy CRT at the office has been replaced and you might reasonably assume that the new monitor is an LCD device. It's not. Because of the way my office is set up, the LCD wouldn't have given back very much space. Heat and power usage are concerns, but not critical concerns.

My primary reason for choosing a CRT instead of an LCD is that CRTs are sharp at any resolution. Most of the time I need to run the 21" monitor at 1600x1200 resolution, but occasionally I may need to drop that down to 1024x768. LCDs are sharp and clear only at their native resolution.

Additionally, I wanted a large monitor and LCDs that are larger than 18 inches are still uncomfortably expensive.

So I followed my own advice: When you're in the market for a monitor, let your eyes be the judge. They'll spend a lot of time looking at what you decide to buy **B**

on the market by A.J. Stinnett

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