

# **THIS & THAT**

by  
Bob Lunaburg



Quite often of late I've been asked, once more and again, that time worn question, "Hey Bob, what's a driver?"

Now, everyone knows a driver is someone who sits at the helm of an automobile and directs it to go where he or she wants it to go. But that's not the kind of driver this question is asking about.

Well then, one might respond, "It's a golf club." Again that would be the wrong answer.

The question is really asking about computer drivers, which are not to be confused with computer users, like you and me. And while those who don't know what computer drivers are might imagine almost anything, they, computer drivers, are really a special type of a program. Computer drivers are programs designed to pass information from application programs to mechanical devices.

"Oh ya!" You say, "What's that mean?"

Well, having probably confused the answer by stating it that way, let's try it another way.

Let's say we hire two computer engineers, and ask each to design and build an inkjet printer. Off they go into their separate laboratories. A few months later they both emerge holding a printer.

Now let's ask each engineer to tell us what

a programmer must include in his or her program in order to instruct the printer to print a page of typed information.

Engineer One explains, in detail, the exact sequence of signals required to print the page.

The programmer writes this down and turns to Engineer Two and asks, "Will this sequence work on your printer?"

Engineer Two says, "Most of it, but I've included some great features inside my printer which require a slightly different set of instructions.

"Well," says the programmer, "can't we agree on a common sequence?"

And then, while Engineers One and Two are talking things over, Engineer Three (where did he come from?) brings in yet another printer with yet a different set of features...which require yet a different set of signals in order to print the page.

"Whoa!!!" The programmer says, "I can't write a program that generates all those different signal sequences for all those different printers. You guys are going to have to help me here. First of all, I have a feeling that there are going to be many different inkjet printers designed, built, and sold. And, I believe, they will all want me to make my program work correctly on all of them. That means that I will spend more time writing printer programs than I will in writing my word processing program."

All together, Engineers One, Two, and Three say, "True."

"Well, I have an idea," the programmer says. "Why don't I write one program that sends my page to be printed to your printer, and you figure out the best way to print it on your printer."

“Hmm,” they all thought. “If you send the stuff you want printed according to these common rules, each of us can write a program that will convert your stuff into signals that work on our different printers.”

The programmer smiled and said, “That’s a great idea, and what will you call your programs, all you computer engineer printer makers?”

Now, dear readers, don’t get too far ahead of me...hold on...yes you in the back, hold on...okay, all together now what did they call them?

“DRIVERS!!!!”

And after having agreed on that, they, each one, made special programs for their printers, and they all lived happily ever after.

So there you have it. Computer drivers are written by computer peripheral makers so that all computer programmers can send computer program instructions to all devices and expect that each device driver will convert the information into signals which will work on their machines.

Monitors, keyboards, mice, printers, sound cards, and many other devices, which can be connected to a computer’s system board, all require drivers.

Having said all this, I will leave you with this, device drivers are programs. Drivers (those programs) can become obsolete when newer application programs, following new standards, send their stuff to the device. When this happens, you will need to download improved (updated) drivers to your computer. More on this another time. Meanwhile, if it ain’t broke, don’t fix it!