Computer Tech Support

Let's Take Another Look.

The August 4 column on computer tech support drew a surprising amount of mail; indeed, more than was ever anticipated. While the volume is encouraging, quite a few readers raised points that were never addressed in the original piece (some quite vocally). Before much time passes, I'd like to answer these important issues directly.

The first business is to correct some readers' mistaken impressions vis-à-vis that column. The reference "calendar months of debugging" was not related to overall functionality of the computer, but to final video system refinement (as careful reading reveals). Now, on to the mail.

RF Consultant Judd Sheets of Odin Engineering wrote two long and pointed letters on the support topic, which are distilled into one below.

I read your column about Tech Support and wanted to relate my opinions on the subject. Like most of us, I use a computer extensively. But, time spent maintaining them is, frankly, money taken from my pocket.

To me, it's unbelievable that anyone would have to follow such a circuitous path of solution. Yet, this seems to be accepted by many computer users. Every time new hardware or software is installed, they then spend many hours tweaking to make things work as they were supposed to out of the box. I, for one, find this situation intolerable. If you want to do real work with the PC and make money, it had better work the first time, every time.

I have, for several years, used a Macintosh (Mac) for most of my work, reserving a PC for those few applications where I couldn't find a Mac equivalent. I spend almost no time maintaining the Mac, even though it is a much more complex setup than the PC. The PC is a minimal system with only a few applications installed, yet it crashes occasionally for no apparent reason. I use a schematic-based microwave simulation package on the Mac that most RF engineers would die for, DragonWave by Gigasim Inc. (http://www.gigasim.com)

I'm not here to say that the Mac is the ultimate computer. But, for this engineer, it works better, saves me money, and is just a better tool than any other platform I've seen to date. Even though the Mac cost me more, it has provided far greater return on my investment than the PC, solely because of lower maintenance costs.

I certainly am not trying to point the finger of guilt at anyone in particular, only at our collective complicity in accepting marginal computer products and manufacturer's tendency to ship incomplete, under engineered products. Is it reasonable to expect a typical nonengineer user to go through what you did to get their computer working?

Shouldn't we be able to merely plug in a new card, turn it on and, in some large percentage of cases, have it function flawlessly? I expect (and get) such performance from your company's products, so why not those of the PC vendors?

The main premise of your article seemed to be that vendor support is often incompetent and insufficient, and can be supplanted by combing the Internet. While I absolutely agree with you, it is the basic necessity of this effort that I find offensive.

Am I an idealist?—sure I am. But I fail to see why we should continually forgive the PC industry for the status quo in personal computing reliability. If the computer breaks, get it fixed. But simple upgrades and installs should almost never trigger a protracted troubleshooting session.

Certainly, a lot of these problems stem from PC motherboard diversity, software versions, etc. Windows 95 is amazing in it's ability to install itself on the majority of machines. However, I have seen little from the PC industry in improving the situation other than the largely forgotten 'plug and play' hype. Features and speed alone seem to drive the market. Users must demand better quality, as well as speed goals.

I've found at least a partial solution in the Mac. Mine has been very reliable. When I added a video card, I plugged it in, loaded the drivers, and that was it. I don't think much about the machine; it just does what I ask.

Again, I am not suggesting that the Mac is the ultimate computer. But users should expect more from their computers than 166 MHz, 32-Mbytes of RAM, 2-Gbyte hard drive, and a low price. That expectation includes trouble-free operation for the life of the product, not an expectation of quirky behavior and intractable problems.

I find that Judd Sheet's points fall into several categories, such as: time is money; Macs perform better and need less support; and his main point that both PC performance and support could be (a lot) better.

On the first point, certainly no one can disagree that lost computer maintenance time is lost money, or that more reliable and versatile computers save costs in the long run. But looking at it from the bigger picture, there is simply a lot more to it than just those issues.

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A hardware platform choice is best made from multiple viewpoints, including the initial cost, software availability, vendor reliability, support requirements, network capabilities, just to name a few. Regardless of one's personal desires, a corporate standard can dictate the platform for you. Also, you always need to look out in time to project software/hardware support. For example, I often use PSpice for simulation, so I wouldn't pick a Mac for a new engineering machine (Mac PSpice support has been dropped).

Mac users are vocal with their opinions on the machine's advantages in ease-of-use and low support requirements—I got several messages to this effect. I can't argue, in fact I hope Mac users continue to get good service.

But even if the superiority issue were totally true, there is today about a 10:1 ratio of installed PCs vs. Macs. Whatever the cause, such a disparity drives software vendors to the predominant platform. And, without continually evolving and supported software, what good is any machine, however superior?

To me, hardware choice at this level is a nonissue, as I have learned from some past experience. When you choose a technically superior platform and knowingly bypass the mainstream, you can run a risk (as I once did with a Zenith Z-100 vs. a PC). The risk is being caught out on the limb of a machine with dwindling and expensive support. On the other hand, in spite of some technical shortcomings, lowest common denominator hardware may be a better choice for software and information availability, and it is usually a no-brainer issue on initial costs. For example, if you are willing to tackle support issues yourself, you can build a truly powerhouse PC-clone today for about $1500, which also can be a real learning experience.

For better or worse, the PC does seem to be established as a corporate hardware standard. Given all of these factors, the stickiest part comes with managing the bottom line cost of PC support.

This leaves us with the thornier aspect of how PC support can be better. On this point, I do heartily agree that improvements are needed. Support shouldn't be such an agony! We, as consumers of PC systems, undoubtedly deserve better service and support for our dollars.

This latter issue is rather well addressed in a letter from Bill Lenihan of Hughes Aircraft Co.:

I commend you for finding a way to solve your problems despite all the barriers. I have also gone through similar torture tests and emerged (usually) victorious. But, there is a problem buried where you say "In spite of the …consumed calendar months …I still find the entire experience a positive one." You are speaking here as a proud engineer having conquered another challenge.

There is nothing wrong with that, except that it perpetuates the mind-set (among those who design products!) that it is OK for products to foul up, and to be poorly documented and supported. When confronted with cases as yours, we engineers need to think and act more like dissatisfied consumers. Yes, I've solved similar computer problems, but I don't want to. I want to get my work done. I expect all software to have good documentation, and any package over $100 to have good documentation and a human being at the company who will answer questions and help me solve my problems (I don't expect to pay extra fees for this support—are you listening, Bill Gates?).

A lot has been written about how the ideal engineer should be able to wear many hats: design, manufacturing, marketing, etc. Let's not forget the most important one: customer!

P.S. The alternative tech support via the Internet is only useful if your computer basically works, including the mouse, modem, and communication software. What are the alternatives if that isn't the case?

P.P.S Would you tolerate a similar tech support scenario with your car?

Well, Bill Lenihan makes some good points, and (perhaps rightly so) takes me to task for not calling the PC industry support structure more of a spade. I'll address his addendums prior to his main point.

If your computer is down and can't track down 'Net info, borrow your friend's computer. Inconvenient, but not impossible.

No, I wouldn't tolerate a similar support scenario from a car dealer. In fact, I had a nightmare of support frustration several years ago, when my wife's car developed a case of stalling in traffic. After repeated visits without a fix plus loss of a year, the dealership bought the car back. Of course, you do need to be doggedly persistent in such cases (and your state needs to have a "lemon law"). But going to the top of the management chain (the dealership president) may be your only solution. They may not always be willing to listen, so be prepared.

TIP: In terms of PC tech support, following a logical checklist can be of some help in problem resolution (see "Help Yourself"[1]). In this article, which features a survey of user opinions on tech support, several companies had superior support ratings. Of course, if you've personally had an unresolved problem with tech support, it doesn't matter how many others say that company is just fine—to you, it's still an unresolved issue.

I recently had a support problem with the machine that fostered the video problem of the August column. In the Windows 95 upgrade of this two-year-old machine, the mother-board-based hard disk controller simply refused to load in anything but "compatibility mode," meaning that the Windows 95 system suffered serious slowdowns. Support-line calls and messages to the PC's vendor drew recommendations of "Contact Microsoft, this is a Windows 95 problem." To make a long story short, a Microsoft Knowledgebase article (#Q151911) on this topic eventually led me to the controller chip manufacturer's website (http://www.cmd.com/graphical/teq/ide/win95.htm) where I downloaded a FAQ plus a driver set which ultimately fixed the problem.

But this fix arrived after the PC's vendor had steadfastly ignored several e-mails specifically asking if disk controller drivers could impact this area. Ironically, the fix came from the controller chip manufacturer, not the PC vendor who had used their chip on a motherboard. It's easy for me to conclude that this particular company simply isn't interested in supporting old PCs.

To return to the main thrust of Bill's letter, he's right; after the fix is in, then it is time to address the source of the original problem. But, this is the truly hard part, where we hardly know where to turn and have little leverage.

TIP: As noted, do document your problems, and present them to the vendor in as clear and concise a way as possible. If and when you should end up finding the fix somewhere else, perhaps a summary letter to the support supervisor, or better yet, the company president, may be in order.

I'll admit I don't know how to best impact the overall support situation, beyond spreading helpful words here. The PC support problem is very real, and isn't likely to go away. When companies like Microsoft get away with releasing a major operating system like Windows 95 without any printed documentation, then you know who's in the driver's seat (it ain't us users). Vendors are aware that their customers know their support can be iffy. A recent study showed that in a significant number (25%) of test calls to support lines, the support personnel couldn't reliably answer questions taken directly from the company's own on-line FAQs![2]

To finish on an up-note, the original column made the point that when

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things do go right, the Web can be a valuable information source. Nothing makes this point like the story below, from David Starr of Analog Devices.

I read your "Computer Tech Support" article and enjoyed it a lot. I also find Usenet gives good tech support, and read it frequently.

Here's my best Internet story. My computer fairy dropped a middle-aged Pentium 90 clone on me. It was "sorta" running, but so slowly that the ADSP2181 ICE was dying on me.

I figured it might be a motherboard jumper setting problem. Of course, the documentation was long gone, with no maker's name on the case-work or motherboard (shrewd marketing tactic that). No little sheet of paper with jumper settings, nothing inside the case.

Finally, I took the only number on the whole silly machine and dropped it into the AltaVista search engine. Lo and behold, I got the maker's web site, the motherboard's instruction sheet, and a FAQ page. The FAQ had all the jumper settings; the works!

David, I'm glad that you gave us an example of how things can sometimes work positively!

Obviously, the tough issues of computer tech support won't find a final end in this column, nor likely a future one.

TIP: In the meantime, it serves us to reflect carefully on that fancy new machine and what goes along with it in terms of support. We can be more discerning in terms of support for whatever we do select.

Thanks to all those readers who wrote in on this topic, plus a special thanks to Windows 95 guru Hampton Childress who tipped me off on the Q151911 document.

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References:

1. David Gabel, Eileen McCooey, "Tech Support Survey," *Windows Magazine*, August, 1997.

2. Jim Carlton, "Computer Help Lines Fail to Click OK in Survey That Finds Array of Glitches," *Wall Street Journal*, August 25, 1997.