Good CAD / Bad CAD

by Tony Richards

Looking for a new computer-aided dispatch and/or records management system? Trying to figure out exactly what you should be looking for? What distinguishes good from bad? We've all heard the stories of computer system disasters, CAD and otherwise, systems that never worked right, that didn't meet the need, with vendors that didn't deliver goods or services.

Like everything else in life, if you are doing this for the first time, you are at a considerable disadvantage in not knowing what to look for, what to look out for, and what questions to ask. Even if it's your second time around, you still likely aren't an expert and the CAD market has probably changed considerably since the last time you looked.

Here's what I've learned in 25 years in this business and having been on both sides of the fence — developing and marketing CAD and records management software and advising agencies on choosing a system.

References
The number 1 single most important way to qualify any vendor is to talk to their existing customers. And don't just talk to the one or two the salesman mentions. Vendors with one or two tolerably satisfied customers and a long list of unhappy customers are a reality in this business. Ask for an extensive customer list and call a fair number of the agencies on the list. If possible talk to both an everyday user and someone who deals with the vendor directly. Be sure you ask specific, pointed questions rather than a simple "How do you like it?" If you get negative answers don't fool yourself into thinking your experience will be any different.

Features
These systems vary widely in what they can do. It's easy to be seduced by a couple of pretty screens with lots of "stuff" on them, but you need to dig deeper, a lot deeper to determine how usable a system is ("user friendly" is a real concern) and how broad its feature set is.

Generally, a newer system will have fewer features just because it doesn't have as many years of development behind it. Of course, you have to make sure a vendor is selling you
a current product, not one that was developed years ago that hasn't been updated in five years. This is one of many reasons why you should get your hands on the software and put it through its paces — and not just watch a salesman go through a well rehearsed demonstration.

Hands on will also tell you and your people how user friendly the software is. As a simple example, some systems today attempt to cram almost everything onto one screen. This results in everything being squeezed into a smaller space. To be specific, consider what happens when your unit status display has room for only 10 units. What happens when you have more than 10? Do you have to scroll to see those additional units? That's not acceptable as standard method of operation for a dispatcher.

Look for a mature system and examine it closely.

Support

"They don't return our calls."
"Their technical support people are useless."
"They won't fix anything."
"I have a two inch thick pile of unresolved problem reports."
"They tell us they'll give us a 40% discount off their new version, only $150,000."
"We haven't had an update in three years."

These all too common complaints are another excellent reason to ask questions of the vendor and their current customers:

Is technical support available 24 hours a day, seven days a week? One agency told us that if their system goes down after five o'clock on Friday afternoon they go to cards until they can call their vendor on Monday morning.

Assuming a human answers the support line is it someone who can really help you? Many vendors have people manning the support lines who can do nothing more than write down your problem and give you a "tracking number." With others you always get an answering machine and may or may not get a return call. Really.

Are all program updates and "new versions" included in the support program at no additional cost? Can updates be applied without the vendor coming to your site to do it for you (at additional cost). Renaming a product and calling it brand new and incidentally charging current customers to upgrade is not uncommon.

Is there any commitment as to the future cost of their support program? You need protection against a vendor raising your support contract by an unreasonable amount after the first year.

Do they have a users group? Does it actually meet regularly? Are the meetings productive/worth attending? Are user suggestions actually considered in future product development?
Involve Your Users
One of the biggest mistakes that has been made over and over is having only senior staff involved in the process of investigating and choosing a CAD and records product. Sure, you're paid the big bucks to make these decisions, but you're not the ones who are going to be using it. Intelligent users can be key in helping make the right product decision and their early buy in can make the transition to the new system go much more smoothly. I've seen too many instances where the everyday users of the system fought it vigorously, simply because it was being "imposed" upon them. When they finally started using it they liked it and quickly stopped complaining — if it was a good system.

Cost
I know someone who recently attended a sales "seminar" presented by one of the larger vendors. There was a lot of talk about the product, how wonderful it was, how many sites it was installed in, etc. There was no mention of what it cost. And when someone asked, the question was deflected. When someone asked again, just for ballpark pricing for an agency of a particular size, they were met with more excuses. They never did get any idea of what the product cost. Can you guess why?

Because it is very expensive! Because it costs as much as 20 patrol cars! Because it costs much more than its competitors! Be awake. If the salesman deflects cost questions go to red alert! This information should be readily available after you answer a few simple questions. If not, the guy with the smiling face is not your friend.

Sales Ploys
Here's a list of some of my favorite sales ploys, from real life, beginning with two that I've seen over and over for 20 years:

"We've got this new leading edge CAD product and we'll give you a 20% discount if you'll be our beta test site." What this really means: "We have a new product that doesn't work yet, in fact it's vaporware – it isn't even finished. We're looking for a sucker to pay us 20% less than our ridiculously inflated standard price to endure two years of misery while we try to get this to work. We're willing to promise you anything to get you to sign."

"We're looking for an agency to be our showcase site." What this really means: "There's really nothing special about this deal, but we need a gimmick to make you think you're going to be special."

"Yes." If the answer to every question is "Yes," that likely is a few too many yeses. The reality is that no system does absolutely everything that any single agency would want it to do. Everybody's a bit different. That doesn't mean that an endless series of "sorry, it can't do that" is good, just that you should be wary of anything that sounds too good to be true.
"SuperCAD is capable of anticipating your dispatcher's every move." Question broad, unspecific claims. Ask for concrete examples and don't let the salesman brush you off with vague responses.

"Sure, it's capable of doing that." Be wary of weasel words and phrases like "capable," "has that capability," and "could." Find out if that feature really exists and if it's included in the base product or is an extra cost option.

"It sure looked nice in the brochure." That's you, not the salesman, after you bought a dud. Remember, the brochure is just a few screen shots and a $1,000 investment in printing — it won't dispatch anything.

The Company
Public safety software companies come and go. It used to be the big computer companies that would jump in the game for a few years, drop duds around the country, and then exit, only to return a few years later. Unisys seems to have been the last of these. The telephone companies have also been infamous in this respect. After all "if the telephone company is selling it, it must be a good system and at least we know they'll be around to service it." No, no, no. Wrong on both counts. Last year a big name phone company was selling a vaporware product promoted by a small company. They finally dumped that product, but it was picked up by another phone company!

Do not be misled by the vendor name…nor by how many employees they have. Lots of people does not necessarily equate to a quality product. Quality people make a quality product. More people often means nothing more than more mouths to feed which equates to a higher price.

Stick to the fundamentals. How long have they been in business? How many years of development are behind the product? What is their reputation with their customers?

Hardware/Software "Platform"
Technical questions about operating systems, computer hardware, databases, and computer languages may be out of your league, but what you don't know can hurt you. Two examples:

Unix is the coming thing. Actually, it's been the coming thing for 15 years now. Some vendors base their systems on it and will hype it as a big plus. It's not. Yes, their system may run wonderfully under Unix, but your entire department will be locked into a Unix environment for all your shared applications shared applications. You will also likely be locked into a particular hardware vendor's expensive computer line that requires a costly maintenance contract.

The language the software is written in may seem to be completely esoteric and of no consequence to you. It should be. First, some vendors will not even tell you, calling it a company secret. Nonsense! Are you or anyone else going to go out and duplicate their system just by knowing what language it's written in? What are they hiding? Here's one
real life example. A relatively new company advertises a hot new product, glossy brochures, pretty pictures, the works. Skipping the part about how poorly it works, come to find out it's written in Paradox! If you are not a software developer you will not understand the exclamation mark, however, to a developer the idea is laughable. Paradox was big in the 1980's, struggled through the 1990's as newer, more advanced languages came along, and will be completely dead in a few years time. Paradox is not suited and was never intended, even in its heyday, to be used for a large, complex, real time application like computer-aided dispatch.

How would the Paradox issue affect you? With a language like Paradox, you will have a system that will have limitations on how it works and what it can do that will seem unreasonable to you. The vendor will be unable to help you. It will be a slower performer and more likely to have bugs that cannot be eradicated. Worse, when it becomes obsolete and is no longer supported, it will freeze future development of your system. Worst, if your vendor then decides to rewrite in a different language, you will probably be hit with buying the "new product."

What's a good language? These days in the PC development business the big ones are Visual Basic, C++, and Delphi. On big computers people use C++ and even COBOL.

Assuming you don't have the background to ask these kinds of questions, you should find someone who can to help you.

The Final Test
If the salesman's suit looks like it cost more than your last car, run.

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