

# ACTIVE CAT SOFTWARE...THE HELPING HAND

By Daniel P. Glassman

I find it interesting that each day provides new experiences on which to draw lessons and knowledge that can be applied in so many ways. At the same time, I find it interesting that so many people steadfastly ignore such potential lessons, holding, instead, to narrow definitions of often-narrower visions of their future when opportunities abound if they'd only open their eyes up and look around.

I've had the opportunity over the past couple of years to learn something about the MRT surgical procedure offered by Bright and Women's Hospital in Boston. When you see what it does, what it provides the doctors using it in terms of realtime visual feedback as they operate, you can only wonder that neurosurgeons would operate on brains at all without it. The procedure allows the surgeon to work with great care on a semi-conscious patient getting feedback as he works and allowing him to work extensively in and around critical portions of the brain. As a result, neurological deficits can be minimized at the same time that the surgical efficacy is maximized.

Now, what, you think, has this to do with the reporting profession? Rather a lot when you consider that it is the enormous advances in technology that have brought our whole society to its present state. Curiously, it is often people working either directly with, or in areas directly affected with technology who tend to be least accepting of the evolution inevitable with the very technologies with which they work. Other times, corporate *modus operandi* precludes the development people in an organization from taking advantage of evolving technologies.

Others, though eager to have access to technologies that prove more effective and better suited to their environments, refuse to risk leaving old methodologies and technologies behind and to step out boldly with products that work better, offer greater efficiency, and actually work along with them to make their work easier. Their losses and willing complacency can only be marveled at.

In my view, the whole evolution of the CAT products for the reporting profession mirror this reluctance to evolve. It's an inertia that is easily masked in so many ways when the market served

tends, as a whole, to be relatively unsophisticated in technology and untrained in business and economics. As a result users are largely left to the mercy of vendors that each attempt to define for them what the universe of their professional possibilities and technical expectations should be.

Said another way, it's one thing to be in the business of producing CAT products, but, quite another to take advantage of a thorough understanding of the technologies and methodologies involved so that a product is able to do for the reporter as opposed to being done on. In recent months, I've coined a rather relevant description of CAT products as being either Active CAT systems or Passive CAT systems.

Traditional CAT products evolved out of methodologies that were created in the 1970's and early '80s that were tied to hardware limitations and known methodologies associated with proprietary hardware platforms. Stenograph's CAT systems were available on Data General and Texas Instruments hardware. BaronData's CAT systems were on DataPoint, Unisys and other types of hardware and Xscribe made its own computers.

It was particularly difficult for companies to evolve gracefully into the PC world because of a feeling of a need for backward compatibility to older systems and methodologies. One of the reasons was that early purchasers of CAT systems often paid up to or over six-figure prices for their systems (I remember two-megabyte Cimarrons going for nearly \$30,000) and to offer a more cost-effective solution to individual reporters would undermine the relationship the early buyers had with the vendors and their control on their businesses and reporters.

So, for example, when BaronDate bought LexiCAT as it's PC-CAT product, or when Stenograph bought MicroCAT and introduced the Cimarron RTS (that it subsequently withdrew from the market after about six months), you had PC-compatible products at a then-reasonable price that had no compatibility with the older products these companies had sold (the same was the case with Xscribe which bought VertiCAT—evolved from David Theilen Software—and created Maestro). More than once, Stenograph went to Jerry Ransome in Texas and bought his products (Cimarron and OmniCAT), both of which fell into obsolescence not long after. What survived from all of the CAT products involved in that great period of acquisitions by Stenograph was OZpc which was to a very real extent, an extension of the Baron

“mainframe” system. Premier Power evolved largely as a re-constituted OZpc with a new name but the same design structure and editing methodology.

You see, when Quixote acquired BaronData in January of 1991, the software development group at Stenograph, which had produced the Cimarron (DEC) systems and Cimarron PC systems (the PC equivalent), was terminated by the new management team that had been retained to run Stenograph. Not surprisingly, that group included Garrett Fitzgibbons (former president of BaronData), Rick Savage (BaronData), Sam Edge (BaronData), Eric Robinson (BaronData), Cindy Welsh (BaronData) as well as other functionaries from BaronData. Software development on the New Stenograph’s products continued without interruption, then, in the former BaronData facilities in California.

This scenario continued for the Stenograph products, through the changes of several subsequent presidents and a myriad of vice-presidents until May of 1997, a month before Case CATalyst was to be delivered, when, after the Heico acquisition of Stenograph, the entire California development facility was closed down and software development efforts were taken up in Illinois.

In the mean time, the industry also saw the advent of a number of new PC-based CAT systems starting with TomCAT and moving through MicroCAT, AristoCAT, LexiCAT, Virgus (AdvoCAT/Scriptor) to ProCAT, Cheetah, StenoCAT and Advantage Software, Inc., and maybe even some others I’ve forgotten to mention.

What you see in the market today, as a result of all the consolidation, bankruptcies, and acquisitions, is a plethora of CAT products that, for the most part, all do a similar thing...that is, taking in machine shorthand outlines and constructing text. The methodologies created in the 1980’s and earlier, however, have evolved little in the intervening decades. Virtually all of them, with one exception that I am aware of (Eclipse by ASI) use a basic, and sometimes remedial, methodology that can best be defined as a simple matching table (personal dictionary) to create the English text. I note English here because none of them (again the exception is Eclipse) have created a product that can, with any degree of elegance, do the same for non-English languages (the exception being Sténotype Grandjean of Paris, France, with their French-language product).

Most CAT systems use this basic methodology to create the text that then remains to be edited prior to printing. As a result, you have CAT systems that have focused on devising clever ways to edit, to fix or to manipulate the text and clever ways to display realtime or captioning output signals without a focus on improving the translation methodology and logic itself.

Now, the curious thing to me is this. Before computers, reporters learned a variety of different non-computer-compatible theories. Just the term “computer-compatible theory” implies having to make accommodations for this new technology that was supposed to make life so much easier for its users. But, that’s exactly what happened. Computers had great memory but were pretty dumb when it came to figuring out stuff like conflicts, stacked strokes and numbers.

So, a collection of new “computer-compatible” theories evolved that taught reporters how to write “conflict free,” though in my experience, I have yet to see a truly conflict-free writer. That meant learning how to write everything differently so that the computer could translate without having to “think” in the process. The burden for a good translation, rather subtly, was transferred back to the writer. Now, if the computer didn’t give a good translation something was wrong with the writer. Reporters became self-conscious about “having a lot of conflicts.” And, many reporters refused (and do so today) to write realtime.

Why?

If the truth is told, it is, in my opinion because of the failure of the developers of CAT systems to understand what the business was really all about and to utilize all available new methodologies and new technologies to build into their software the sophistication required (and certainly available) to work with the language in which the reporter works to deliver a text that requires a minimum of editing effort.

Why?

If the objective of a business is to generate a revenue stream for its owners, the easiest way to do that is to introduce a new product or upgrades (that you can charge for) every couple of years. That way, the effort and investment by the company can be focused on something they can understand more easily than the intricacies and rules of a language...repackaging and marketing to create a demand for a “new” looking product. They can do this without fundamentally changing anything about the quality of product that the user ends up actually working on.

Look for example at the number of CAT products in just the 1990's that Stenograph has made obsolete: Cimarron (DEC), Cimarron PC, OmniCAT, OZpc, Premier Power, XEC, Maestro and 2001 (and AdvoCAT that was bought out of bankruptcy and shelved). Virtually none of these was developed by the company that sent them to CAT heaven and all were victims of a plan of acquisition for market share and customer base that could be "worked" through software migrations to move them to a single product and generate revenue for the company. As a result, the product being marketed today is developed by a company, in its present form, with less than two years experience in developing CAT systems.

Other vendors have been caught up in this same cycle of new introductions, obsolescence, re-constitutions and upgrades, to generate new business as well. Again, the exception seems to be Eclipse.

This answers some of the questions, when one looks around the market to see what is available and what can be reasonably expected to really do something for the reporter today that it didn't do five or ten years ago. Eclipse has been under continuous development since 1987 when Advantage Software, Inc., was born from the misbegotten exercise of Stenograph's acquisition of MicroCAT and subsequent withdrawal of that product from its product line.

That means that for over twelve years, new methodologies have been designed into the product to create a transcription product that a reporter who bought in 1988 could be working on today, with all of the enhancements through true feature-rich updates (as opposed to updates typically loaded with bug fixes by companies who are constantly introducing new products) without having to have learned a new software all over again.

Experiencing a software product that has built into it an understanding of language structure, grammar, punctuation, spelling and international character sets and formats is a rare event indeed. Watching reporters who strive for perfection (a characteristic of the reporting professional, whether American or Canadian or British or Australian or Spanish or German.....) and seeing how much an 'intelligent' software does to truly ease the effort subsequently required in editing would make any interested party a true believer in what Eclipse does. When one sees correct translations of text appear when personal dictionary entries don't even exist, or where stacked strokes are recognized as such and correctly translated, or where numbers can be written free of concern for the method of writing knowing that they'll be translated correctly, it is easy to get the feeling that there's something much much more to a CAT product than a simple translation system that most reporters have worked with.

So, that brings one back to the point of comparing an Active CAT system with a Passive CAT system. An active CAT system may be defined as a CAT system that invokes, in detail, an understanding of the language rules in which it works. It understands steno and knows there are such things as dropped or dragged (shadowed) strokes and accommodates those "variations" in translating the notes. It's a CAT system that uses sophisticated 'intelligence' to resolve conflicts based on grammar rules, parts of speech, proximity to punctuation, etc., not based on the probability for selecting determined by prior selections in the same context. It is a system that accommodates and works with the way a reporter writes rather than expecting the reporter to change his or her writing to accommodate the software. It is a system that allows the reporter to write numbers and alphabets the same way whether writing normally, in "stitch-mode/spell-mode" or whether writing currencies (of any sort) or numbers (whether telephone numbers, identification numbers like Social Security numbers, etc.), hyphenated numeral/word combinations (i.e., 5-Mile Road), and to define for the local requirements what the thousands separators and decimal indicators should be.

If you are currently working on a Passive CAT system, you may not fully grasp the implications or benefits of what such a different approach in CAT design could do for you. If you are fortunate to have purchased an Active CAT system as your first CAT software you'll never fully appreciate what you've got vis-à-vis other CATs. If you've "been there and done that" and now have a product like Eclipse, you probably don't need to be told that you'll never settle for a passive software partner in business again.

In my opinion, no CAT system is perfect, there's always room for improvement. But, a product that has had the benefit of continuous development and improvement year after year is by design and evolution going to be a much more sophisticated and feature rich program than one that is reinvented every couple of years. You put so much effort into your own work, into your skill development and into your future. Isn't it time you placed greater demands on and had greater expectations for the software you use? It seems to me that the choice is pretty simple. You can operate in the blind with yesterday's images firmly stamped in your mind hoping that you'll be doing it right or you can take advantage of software that has evolved to where it should be today.