## **CueCat Postmortem**

"The CueCat is dead! Long live the CueCat!"

I've always been of two minds about the CueCat. On one hand as someone who's been intimately involved with bar codes for the last 12 years, I firmly believe that bar codes are poised to spread from the manufacturing and industrial world into the larger home and SOHO markets. On the other hand as someone who's been intimately involved with bar codes for the last 12 years, I thought Digital Convergence's high-profile foray into mass market bar code devices was a pitiful joke.

I quickly and proudly confess to having been one of those "hackers" who reversed engineered and released unauthorized software for the CueCat soon after its introduction. Cory King and I spent a mere 26 hours developing QTools [www.azalea.com/QTools] which unbundled and unburdened the CueCat from being used exclusively with Digital Convergence's web site and transformed it into a free, general purpose bar code scanner.

Bar codes, those cryptic series of bars and stripes that seem to be everywhere, out in plain view but invisible to most. Bar codes are simply a way to encode chunks of information that get scanned and eaten by various automated devices, everything from retail cash registers to the handheld devices used by overnight delivery drivers. Bar codes insure fast and accurate data transferal, plug directly into backend databases and other computerized systems, and offer considerable cost-savings along the way. In short, they're pretty cool once you begin to realize how useful they are.

To date, the use of bar codes has been largely confined to either retail systems like cash registers and other point of sale applications, and the warehouse, inventory, and shipping industries. In both cases it's pretty easy to see why their use is widespread: they save both time and money.

The use of bar codes outside of such industrial settings hasn't spread to consumers. Yet. The same cost and savings benefits that companies have enjoyed can be shared by consumers. The two reasons this hasn't happened are that until now the scanning devices have been expensive and there isn't a way for consumers' scanned input to be feed back to retailers. Yet.



819 N. 49th St, #415 Seattle WA 98103 1 206 341.9500 www.azalea.com

Digital Convergence, fueled by millions of investors' dollars attempted to address this classic chicken'n'egg logjam by giving away millions of free scanners in an effort to seed the consumer auto ID market. With partners like Radio Shack, Wired, Parade Magazine, and Forbes believing the hype, DC tried to give away millions of scanners. Tried but never succeeded.

Why? They were too hard to use, especially given the marginal value their use gave back to the consumer. Their fatal flaw was attempting to impose a closed, proprietary infrastructure on the market in a transparent attempt to profit by acting as the roundhouse in the ecommerce transactions.

Repeat after me: "closed systems don't work." Open systems, cross-vendor standards, industry-driven specifications and guidelines, standards committees, et al. serve a purpose: they boost everyone's chances of survival. Note Microsoft's responses to open source software.

The CueCat scanner itself was an object of fascination to me from day one. As someone who's been hoping and praying for years for bar codes to seep into the mass market, I was curious about how DC would attempt do it. The scanner itself was D-U-M dumb. Cutesy shaping like a cat (to go with our mouse I assume) was unnecessary

The cost of goods was kept to a minimum by designing the CueCat like a disposable toy, not a ruggedized industrial device. It used two red LED lights instead of a much more expense CCD or laser. Perhaps we should be begging Tiger and Matel to enter the market instead of waiting on consumer/SOHO products from the traditional bar code hardware vendors. The exception to the aforementioned is the consumer product line from Symbol Technologies.

Don't get me wrong, as flawed as Digital Convergence's basic business plan was, someone's gonna git it right. (Hint: don't expect a former infomercial maven to take over the world in the tech sector.) Tying print to web is powerful. Why? Because so much of today is already in a database somewhere. The system is set up for that infrastructure to work downstream from the manufacturer to the shipper to the retailer, and finally from the retailer to you. At no point in the scheme does the customer get to talk back upstream to the retailer and beyond. Yet all of these systems are already computerized and integrated. There is value for everyone involved if the dialogue is two-way and bisymetrical: upstream and downstream. *That's why consumer auto ID is so fundamentally important*. For the first time the consumer can talk back to the retail chain and get heard *if the upstream parties are willing to listen*.

My grocery store has a number of ways it can talk to me: TV, radio, and newspaper advertising, coupons mailed to my house, in-store displays, coupons printed on the back of the cash register receipt, membership programs where you present a bar coded key fob or wallet card at the register,

etc. And if you don't think the retailers are harvesting consumer data to better market to you, open your eyes. That's all well and good if it improves my overall shopping experience. I, the consumer, am willing to exchange a known amount of personal information in exchange for something I as a shopper perceive is of equal or greater value. Something that enriches my overal shopping experience.

For example, I resisted getting a membership card from my local grocery store in spite of knowing the cost savings because I didn't want my shopping transactions recorded and tracked. Once Safeway offered United Airlines frequent flyer miles to members, I joined. Accruing more miles enriched my shopping experience enough that I surrendered personal data to get it.

The key to success in the consumer auto ID business hinges on widespread deployment of scanners among consumers, seamless integration into retail channels systems, and value returned back to the consumer resulting in an enriched shopping experience. Scanners need to be consumer devices not industrial devices. They need to be low-cost, portable, fashionable, and fun to use. Target can distribute scanners with their red bull's-eye's on it. K-Mart will counter with a Martha Stewart sponsored device. You know your grocery store wants you to use theirs and they'd be wise to do whatever it takes to get you to talk back to their automated systems. McDonald's will give away movie tie-in versions. Toys'r'Us won't be far behind. Scan coupons in print ads and email the results to Santa.

It's unreasonable to expect all entrants to this new market will be successful. Their odds plummet if they insist on using their own proprietary, closed systems. Success for all is insured if usage is built upon common bar code symbologies like the UPC and EAN symbols used in the retail world, and Code 39 and Code 128 in the inventory, tracking, and shipping industries. The obstacles are greater for those pushing their own bar code schemes.

Bar code usage in homes and small business is destined to grow for all the same reasons its use is so widespread in the vertical markets its in now. It saves time and money, and facilitates the transfer of information between parties. I say to my sisters and brothers in the traditional auto ID market, "Let's invite the mass market to the party, shall we?"

Jerry Whiting, President/CEO Azalea Software, Inc. July 5, 2001