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SEARCH









For a few weeks, I had been anxiously awaiting the arrival of the [:CueCat](#) device along with a subscription to *Wired* magazine. I had seen the advance advertisements and marketing, and I honestly wanted to check out the gadget to see what it could do. Imagine it: A free personal barcode reader that could be used to link print with the Internet, avoiding all of the hassles of long, complicated and ever-changing URLs. Beyond that, the [:CueCat](#) could be used to link television programs, soup cans, books, VCRs and even the radio to the Internet. I really wanted to get one of these to try it out.

Well, before going into detail about my attempts and some related stories about the device, I'll digress briefly to describe the [:CueCat](#) device, for those who might not subscribe to *Forbes* or frequent *Radio Shack* stores. The [:CueCat](#) is a small hand-held device produced by a Dallas-based company called [DigitalConvergence.com, Inc.](#) It is designed to hook up to your computer's keyboard port to be used as a barcode reader to feed information from the device into proprietary software that correlates barcode numbers into related Internet addresses. These barcodes can be either traditional product UPCs, a standard number such as an ISBN from a book, or a proprietary [:CueCat](#) barcode that has begun to appear on advertisements and in articles. The first major publications to feature [:CueCat](#)-coded ads and articles include *Wired* and *Forbes*, who both sent out free readers to their subscribers. Well, that's the basic background of the device, so now on to some other details.

In assessing the [:CueCat](#) for this column, I had fully intended to evaluate the features of the device as a primary focus of this review, considering such things as: the complexity of the URLs associated with [:CueCat](#) barcodes and the degree to which UPCs and ISBNs are included in the existing [:CueCat](#) database. The only problem was that I was not able to get it to work properly, and I eventually gave up.

I am sure that there is some small configuration glitch with the Internet or network connection where I work, but after trying to install two versions of the [:CRQ](#) software on three separate computers, spanning two operating systems and at least five browser versions, I was still not able to get the [:cueCat](#) out of the proverbial bag, such that it

would actually read barcodes. That said, the device will presumably perform better for others, and I truly think that there will be a market for using this kind of device to link the physical world to the Internet.

Conflicts Abound

I don't feel compelled to overly-criticize :CueCat or DigitalConvergence, as I think that this is still a great product in concept. Nonetheless, it is apparent that critics and skeptics of this device certainly abound. Take a look at some of the coverage that's come out to date:

- In [Salon.com](#), Scott Rosenberg wrote a well-rounded criticism entitled [A Scanner Darkly: Can Wired's CueCat giveaway turn us into a nation of bar-code-reading clerks?](#)
- ZDNet News commentator David Coursey gets even more critical of the device, writing of [CueCat and corporate cluelessness](#)

Other criticisms relate to privacy concerns of a device that could potentially correlate user behavior with demographic and personal information as well as every barcode a person scans. Articles have appeared to pose the question: [Will privacy kill the CueCat?](#) (from ZDNet News) as well as a number of other questions about privacy and data gathering by the device. Additionally, the [Privacy Foundation](#) has issued a [detailed privacy advisory](#), which includes an assessment of information transmitted by the device as well as responses from DigitalConvergence. A [detailed privacy statement](#) can also be found on the :CueCat site, explaining what kind of data is being gathered as well as the uses to which it is being put.

Hackers Upset

As if it weren't enough of a problem for DigitalConvergence to be scrutinized by privacy-concerned citizens as well as general concept critics, technology enthusiasts also quickly got involved in activities that didn't sit very well with DigitalConvergence. Apparently, the initial concerns came about when programmers began to post drivers for the device for the Linux operating system, which was quickly followed by other programs designed to circumvent the normal operation of the :CueCat for use variously as a general barcode reader and inventory collection device. A [discussion posted at Slashdot](#) ("News for Nerds. Stuff that Matters.") details the issue with the Linux drivers and some related skirmishes. Additionally, an October 5 article from the *San Jose Mercury News* titled *Re-engineering the CueCat: Scanner's maker battles technology mavericks* provides further detail.

Shopping and Browsing By Barcode

Irrespective of any privacy concerns, and ignoring the battle between hackers and DigitalConvergence, the advent of the :CueCat is a part of what could be a major shift in the way that the public seeks information, links physical items with the Internet, and performs such routine tasks as price comparisons and even grocery shopping. It is really no surprise that the almost ubiquitous barcode lies at the center of this all, considering that it already exists on everything from beer bottles to bar review books. Detailing some of the major developments in this barcode craze, the New York Times ran an article on October 6 under the headline: [Speaking in Bar Code](#). This provides a great overview of some of the major players in the market for barcode-oriented shopping and Internet browsing, including details of :CueCat's business plans.

One of the areas in which barcode-enabled shopping has already begun to develop is through the use of Internet-enabled mobile phones. As all handheld phones are equipped with number pads (and not QWERTY keyboards), it seems that

barcode-based transactions ought to be fairly easy to implement, especially considering that it should involve the transmission of very little data. Websites already exist to translate barcode information into comparison-shopping matrices, including those of BarPoint.com and a less flashy but equally useful Barcode-Search.com.

Other Barcode Collection Technology

Now that barcodes are poised to serve as unique data points for the home consumer, how are we going to collect all of them? Thankfully, we are not expected to transcribe any of them by hand: Beyond the :CueCat device, there are several options. The writing instrument manufacturer [Cross](http://Cross.com) has developed the [NetPen](http://NetPen.com), which can be used to collect up to 150 individual barcodes. These codes can then be downloaded to a computer and processed with the [PaperClick](http://PaperClick.com) software to link to sites on the Internet. Other major players include [Symbol Technologies](http://Symbol Technologies.com) who make such consumer devices as the hand-held [CS 2000](http://CS 2000.com), which can store up to 500 UPCs. Lesser-known Jumptech.com have tested a print/Internet combination technology here and in Europe, which sounds to be similar to that of the :CueCat.

In the near future, there are certain to be others to follow, and it will be exciting to see how the product and service partnerships pan out. At the very least, we'll have to watch: the people who make the collection technology (free or for sale?), those who support transmission of the data (wireless or traditional connections?), those who maintain databases of standard numbers (UPCs, ISBNs, :CueCat codes, etc.), and of course those who provide the inventory to sell physical items found with numeric look-up codes. To be certain, any combination of these services might be offered through a variety of business models, incorporating diverse business partnerships and alliances. It will be exciting to see how it all pans out, and I look forward to tracking the successes of this new and developing market area.

W3C's HTML Tidy for Cleaning up Code

In [last month's column](#) I took a look at two programs for filtering and cleaning up HTML code, mostly focusing on ways to trim down HTML created by Microsoft Word. Thanks to a suggestion from John Lederer, I am happy to say that there is another useful program out there to try, and it's FREE. The World Wide Web Consortium (W3C) distributes a program called HTML TIDY, which is designed to correct, cleanse and constrict a variety of HTML coding mistakes and errors. The core of the program is designed to fix problems with matching HTML tags, oriented towards correcting code to conform to the HTML 4.0 recommendation from W3C.

One great aspect of HTML Tidy is that settings are also implemented expressly to clean up HTML code from Microsoft Word 2000 documents. Versions for several operating systems are available as command-line console-mode programs, from which combinations of several dozen HTML manipulation tactics can be employed. For Windows users, there is also a graphical version of this called TidyGUI. *TidyGUI* provides all of the options of the W3C program with the added advantage of being able to save configuration settings and see the available settings parameters on-screen.

To check out the Microsoft Word 2000 clean-up process, I tested it on a 7-page document with three simple tables. I first saved this file as HTML with the standard "Save As" > "Web Page" option in Word 2000. *TidyGUI* took this file and reduced a 120k document down to 20k, and both looked almost identical, with no noticeable degradation in the new file. The big difference of course was that the "cleaner" document didn't have font, style or class attributes, which made it look quite plain. This was exactly what I wanted. I could then take the resulting document and use any of the HTML source code without fear of having conflicting or otherwise unnecessary elements in it. *TidyGUI* didn't work as well in trying to clean up documents that were

exported as "Compact HTML" through Microsoft's HTML Filter (see [last month's column](#) for details), and I wasn't able to test many of the advanced features of the program.

Nonetheless, HTML Tidy looks to be extremely valuable for correcting and cleaning HTML code, especially if you type any tags manually. It should also prove to be a great tool for anybody who needs to tweak, tune and transform HTML documents from a variety of sources. By all means, the program deserves closer attention, and for the time being alone the Word 2000 clean-up features make it worth a look.

As always, if you have questions or comments on this column, please don't hesitate to [send me an email](#).

Web Sites Mentioned in this column:

[:CueCat](#)

[DigitalConvergence.com, Inc.](#)

[*A Scanner Darkly: Can Wired's CueCat giveaway turn us into a nation of bar-code-reading clerks?*](#)

[*CueCat and corporate cluelessness*](#)

[*Will privacy kill the CueCat?*](#)

[Privacy Foundation](#)

[Detailed privacy advisory from the Privacy Foundation](#)

[DigitalConvergence detailed privacy statement](#)

[Discussion of linux drivers for :CueCat posted at Slashdot](#)

[*Speaking in Bar Code*](#)

[BarPoint.com](#)

[Barcode-Search.com](#)

[Cross](#)

[NetPen](#)

[PaperClick](#)

[Symbol Technologies](#)

[CS 2000](#)

[Jumptech.com](#)

[Notes from the Tech Trench, #34 - September 15, 2000](#)

[World Wide Web Consortium](#)

[HTML Tidy](#)

[TidyGUI](#)

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