

The Embedded Muse 8

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October 8, 1997

Interesting Article and Catalog

If you have any interest in the history of electronics, by all means check out the September 15, 1997 issue of Electronic Engineering Times. The article by George Rostky that starts on page 20 covers the invention and development of the calculator. He goes all the way back to the abacus, and shows us how we got to the \$3 disposable units we have today.

I remember playing with the Friden 5 function units as a kid. These 50 pound monsters could do the basic four functions and square roots. Some calculations took many seconds, yet the unit was entirely electronic, even using a CRT for results. When these units became obsolete I disassembled one, amazed to find them devoid of ICs. Hundreds - maybe thousands - of transistors filled the unit. Truly a marvel of design.

I highly recommend the article.

On another front, I recently received a catalog from Tech America, a new name (to me) in the electronics biz. They sell all sorts of components, the things tinkerers dream of. JDR, Digkey, Jameco, and others sell components as well, but none have such a fun catalog. Each chip gets a quarter page of description, with pinout and functional info. On the embedded front, they do sell the Basic Stamp boards, a series of PIC-based products I hope to review at some point (summary of future article: very high fun factor).

Unhappily there's no e-address listed. Via snail mail get them at PO Box 1981, Fort Worth, TX 76101-1981. Phone: 800-877-0072. The catalog carries a \$3.95 price tag but I presume it's actually a freebie.

Embedded Systems Conference Notes

The San Jose Embedded Systems Conference last week blew my mind. It's bigger than ever, and the glitter factor has gone off the scale. Not that many years ago there were just a handful of tabletop displays in a small San Francisco hotel. This year the show filled the San Jose convention center, with booths even stacked up in the atrium. Truly a remarkable affair.

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My amateur assessment of the show is: Java, embedded Internet, 32 bits, and Windows CE. Last year these subjects were on display in a limited way; in 1997 they dominated the displays and the technical sessions. 8 and 16 bits seemed to be lost in the noise.

In one Windows CE presentation Microsoft made three - count 'em - three references to the CE Toaster of the future. Though there was a small sense of levity implied I couldn't help but remember that my most recent EDN column was in fact a joke about designing a toaster using 32 bit processors. Truth is stranger than fiction.

Yet I'm seeing more and more embedded apps using sophisticated GUIs. Check out HP's new Infinium oscilloscopes. These are very cool, high performance scopes with a sleek display. The OS? Windows 95. Look at Scott Rosenthal's article on embedded localization issues (October 1997 Personal Engineering & Instrumentation News magazine). He implies that a GUI of some sort sure makes it easier to build instruments with multi-language support.

I was also interested to learn that a major car vendor is designing 32 bit CPUs into their engine controllers. This is a traditionally very cost-sensitive application, yet they've managed to match 32 bits to the pricing needs. No GUI in this app (so far), but the trend is clear.

8 and 16 bit systems outnumber 32 bitters by orders of magnitudes. I can't help but wonder, though, if consumer lust (real or perceived) for net-awareness and pretty GUIs will slowly change this model.

Thought for the Week

The Wall Street Journal had an article about the Dutch takeover of JFK airport's International Arrivals building. The Dutch have some interesting ideas on how to clean it up.

In Amsterdam, the tile under Schiphol's urinals would pass inspection in an operating room. But nobody notices. What everybody does notice is that each urinal has a fly in it. Look harder, and the fly turns into the black outline of a fly, etched into the porcelain.

"It improves the aim," says Aad Kieboom. "If a man sees a fly, he aims at it." Mr. Kieboom, an economist, directs Schiphol's own building expansion. His staff conducted fly-in-urinal trials and found that etchings reduce spillage by 80%.

"We will put flies in the urinals -- yes," Jan Jansen says in a back office at the Arrivals Building. He is the new Dutch general manager. "It gives a guy something to think about. That's the perfect example of process control."

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His New York public relations attendant titters. "Fine, laugh at me," Mr. Jansen says. "It works."

About The Embedded Muse

The Embedded Muse is an occasional newsletter sent via email by Jack Ganssle. Send complaints, comments, and contributions to him at jack@ganssle.com.

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