

# The Embedded Muse 57

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## **Don't Worry Be Crappy**

Just what we need - another journalist telling us how bad we developers are. Check out [http://salon.com/tech/feature/2000/12/06/bad\\_computers/index.html](http://salon.com/tech/feature/2000/12/06/bad_computers/index.html), an article titled "High Tech's Missionaries of Sloppiness" by Cheryll Aimée Barron. Though painful, this is a thought-provoking piece on the poor state of software, embedded and otherwise.

Ms Barron states: "Many other industries produce high quality products and take full responsibility for their defects. Though commercial aircraft are, like computers, extremely complex hardware and software systems, their makers do not duck responsibility for their flaws."

A very valid point. But I fear that too many people fail to realize that quality is not free. That jet airplane comes with a whopping \$100 million dollar price tag... or more. Till companies, and ultimately consumers, are willing to pony up the real price for high quality code we're never going to get out of the software quagmire. The avionics software in a plane meets a far higher quality bar than that in your CD player, and so costs orders of magnitudes more.

The article compares the abysmal state of software to the American car industry of the 70s, when defect-ridden automobiles were the norm. I'm not sure I agree. We tend to manage software development by a "ship it NOW, fix bugs during customer support" mode, whereas the car industry fostered fixes off on a dealer network. Perhaps a better analogy is one with gasoline. Pump it cheap, sell it in astronomical quantities, but don't

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factor in the costs of the environmental impact. We'll pay for that later, with other money, somehow, maybe. Software maintenance, like environmental degradation, seems an off-budget expense totally unrelated to the product itself.

Ms Barron does correctly identify a problem fostered on us by management and silly consumers: feature-itis. We expect our products to do too many things. Why must every embedded system display the time? Does your cell phone really need a game application? Demand for too many features, with zero time to market, naturally leads to junky applications. Only in electronics do we have such peculiar expectations of our products. If my outboard motor had any sort of decent CPU it would no doubt display speed, compression ratio, and weather forecasts for any of 10,000 cities. An electronic version of the armchair would probably compute your weight and plot the first and second derivative while taking your blood pressure and reminding you to call mom on her birthday.

Thanks to reader Eduardo Machuca for passing this URL along.

## **Salary Survey**

Check out the November issue of Embedded Systems Programming (<http://www.embedded.com/2000/0011/0011sr.htm>) for a recent developer salary survey. Interesting data.

## **Thought for the Week**

I finally figured out what to do with all of those AOL CDs. Toss 'em in the ocean. Eventually the entire sea will be covered, reflecting much of the sunlight back to space. This reduces the Earth's albedo, curing the global warming problem! Thanks, AOL!

## **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](mailto:jack@ganssle.com).

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