

The Embedded Muse 60

Editor: Jack Ganssle (jack@ganssle.com)

January 29, 2001

Bad Designs

This weekend my son finished his science fair project, firing a toy rocket-powered car a number of times to collect distance traveled versus specific-impulse data.

My mission was to take photos, using a new digital video camera. Video was useless to Graham, but the camera also takes still pictures stored to a memory stick. We figured we'd download the pictures to the PC and print them out.

Amidst great clouds of smoke, squealing delighted kids (some over 40!), and a car that seemed determined to chase down spectators no matter where they stood, Graham collected data while I snapped off pictures.

Later, to my shock and horror I discovered that the pictures didn't "take". Despite a viewscreen indication that said "capturing" every time I pressed the button, the memory stick was empty. Digging deeper we found that in fact the pictures were recorded, but on video tape as 10 second pseudo-still shots. Happily we were able to retrieve them, though only via a painful process of using video capture software that sucks data through a Firewire port.

The camera has 39 buttons. 39! I had had one of the many mode controls set incorrectly. You'd think something as simple as taking a still picture would be intuitively obvious.

Perhaps one of the next biggest challenges we embedded folks face is making our creations more user-friendly. Do you know how to program your cell phone? How do you override the TV's automatically-selected set of channels?

Check out <http://www.baddesigns.com>, a site dedicated to designs with major usability issues. Though not inherently embedded, the lessons shown do apply to the products we build. It's usually just as easy to build a user-proof system as one that creates confusion... though such design requires a lot more thought. What can go wrong? Can X and Y get mixed up?

The web site is full of interesting, funny, and thought-provoking real-life products with problems. Well worth a visit.

Copyright 2001 by The Ganssle Group. All Rights Reserved. You may distribute this for non-commercial purposes. Contact us at info@ganssle.com for more information.

I also highly recommend the book “The Design of Everyday Things” by Donald A. Norman (ISBN: 0385267746). As the author says “This book is intended to be a call to arms, to sensitize everyday people to the foibles of the design of technology, whether it be a doorknob or a computer. If you have problems with technology it is not your fault. A secondary purpose was to teach the designers of these high-technology foibles. My goal was to impart some basic principles of a human-centered design.”

Thought for the Week

What’s a “Seagull Manager”? That’s the person who flies in, makes a lot of noise, poops over everything and then leaves.

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.

To subscribe, send a message to majordomo@ganssle.com, with the words “subscribe embedded *your-email-address*” in the body. To unsubscribe, change the message to “unsubscribe embedded *your-email-address*”.

The Embedded Muse is supported by The Ganssle Group, whose mission is to help embedded folks get better products to market faster. We offer seminars at your site offering hard-hitting ideas - and action - you can take now to ***improve firmware quality and decrease development time***. Contact us at info@ganssle.com for more information.

Copyright 2001 by The Ganssle Group. All Rights Reserved. You may distribute this for non-commercial purposes. Contact us at info@ganssle.com for more information.

The Ganssle Group, www.ganssle.com