

# The Embedded Muse 25

Editor: Jack Ganssle ([jack@ganssle.com](mailto:jack@ganssle.com))

August 3, 1998

## Peopleware

An old farmer and a young farmer are standing at the fence talking about farm-lore, and the old farmer's phone starts to ring. The old farmer just keep talking about herbicides and hybrids, until the young farmer interrupts "Aren't you going to answer that?"

"What fer?" Says the old farmer.

"Why, 'cause it's ringing. Aren't you going to get it?" says the younger.

The older farmer sighs and knowingly shakes his head. "Nope". he says. Then he looks the younger in the eye to make sure he understands, "Ya see, I bought that phone for MY convenience".

Most of us regard the ringing phone as an emergency. Drop whatever you're doing and grab it! Stop all conversation, abandon the meeting, and respond to what is all too often some salesman pushing cheap phone services.

We know better than that. Interruptions are one of the most effective productivity killers around.

For my money the most important work on software productivity in the last 20 years is DeMarco and Lister's Peopleware (1987 Dorset House Publishing, NY NY). For a decade the authors conducted coding wars at a number of different companies, pitting teams against each other on a standard set of software problems. The results showed that, using any measure of performance (speed, defects, etc.) the average of those in the 1st quartile outperformed the average in the 4th quartile by a factor of 2.6.

Surprisingly, none of the factors you'd expect to matter correlated to the best and worst performers. Even experience mattered little, as long as the programmers had been working for at least 6 months.

They did find a very strong correlation between the office environment and team performance. Needless interruptions yielded poor performance. The best teams had private (read "quiet") offices and phones with "off" switches. Their study suggests that quiet time saves vast amounts of money.

*Copyright 2000 by The Ganssle Group. All Rights Reserved. You may distribute this for non-commercial purposes. Contact us at [info@ganssle.com](mailto:info@ganssle.com) for more information.*

Think about this. The almost minor tweak of getting some quiet time can, according to their data, multiply your productivity by 260%! That's an astonishing result. For the same salary your boss pays you now, he'd get essentially 2.6 of you.

The winners - those performing almost 3 times as well as the losers, had the following environmental factors:

	1st Quartile	4th Quartile
Dedicated workspace	78 sq ft	46 sq ft
Is it quiet?	57% yes	29% yes
Is it private?	62% yes	19% yes
Can you turn off phone?	52% yes	10% yes
Can you divert your calls?	76% yes	19% yes
Frequent interruptions?	38% yes	76% yes

Too many of us work in a sea of cubicles, despite the clear showing how ineffective they are. It's bad enough that there's no door and no privacy. Worse is when we're subjected to the phone calls of all of our neighbors. We hear the whispered agony as the poor sod in the cube next door tries to work it out with his spouse. We try to focus on our work... but being human the pathos of the drama grabs our attention till we're straining to hear the latest development. Is this an efficient use of an expensive person's time?

Yet the cube police will rarely listen to data and reason. They've invested in the cubes, and they've made a decision, By God! The cubicles are here to stay!

This is a case where we can only wage a defensive action. Educate your boss but resign yourself to failure. In the meantime, take some action to minimize the downside of the environment. Here are a few ideas:

- \* Wear headphones and listen to music to drown out the divorce saga next door.
- \* Turn the phone off! If it has no "off" switch, unplug the damn thing. In desperate situations attack the wire with a pair of wire cutters. Remember that a phone is a bell that anyone in the world can ring to bring you running. Conquer this madness for your most productive hours.
- \* Know your most productive hours. I work best before lunch; that's when I schedule all of my creative work, all of the hard stuff. I leave the afternoons free for low-IQ activities like meetings, phone calls, and paperwork.

*Copyright 2000 by The Ganssle Group. All Rights Reserved. You may distribute this for non-commercial purposes. Contact us at [info@ganssle.com](mailto:info@ganssle.com) for more information.*

\* Disable the email. It's worse than the phone. Your two hundred closest friends who send the joke of the day are surely a delight, but if you respond to the email reader's "bing" you're little more than one of NASA's monkeys pressing a button to get a banana.

\* Put a curtain across the opening to simulate a poor man's door. Since the height of the cube rather low, use a Velcro fastener or a clip to secure the curtain across the opening. Be sure others understand that when it's closed you are not willing to hear from anyone unless it's an emergency.

## **Thought for the Week**

Jim Chase created an object-oriented version of the data type presented in the last issue. Here it is, with some additions suggested by other readers:

```
type
SoftwareProfessional = class
{
    double    salary;
    long      lunches;
    float     jobs;
    char      unstable;
    void      work;
    volatile  short_temper;
    union     none;
    enum      workdays {mon, tues, wed, thurs, fri, sat, sun};
};

EnhancedSoftwareProfessional = class(SoftwareProfessional)
{
    int       rovert;
    long      hair;
    void      other_humans;
};
```

## **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).

To subscribe, send a message to [majordomo@ganssle.com](mailto:majordomo@ganssle.com), with the

*Copyright 2000 by The Ganssle Group. All Rights Reserved. You may distribute this for non-commercial purposes. Contact us at [info@ganssle.com](mailto:info@ganssle.com) for more information.*

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](mailto:info@ganssle.com) for more information.

*Copyright 2000 by The Ganssle Group. All Rights Reserved. You may distribute this for non-commercial purposes. Contact us at [info@ganssle.com](mailto:info@ganssle.com) for more information.*

**The Ganssle Group, [www.ganssle.com](http://www.ganssle.com)**