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*M Computing* is published by MUMPS Users' Group trading as M Technology Association, Suite 205, 1738 Elton Road, Silver Spring, Maryland 20903. Phone: 301-431-4070, Fax: 301-431-0017, email: [MTA@mtechnology.org](mailto:MTA@mtechnology.org)

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## FROM THE EDITOR

# Software Quality, Standards and the MTA



Kate M. Schell

by Kate M. Schell

For years there has been a cadre of people in the M community stating that software standards are good platforms upon which to build products and projects. Chief among these, until recently, have been branches of our federal government, such as the Department of Veterans Affairs and the Department of Defense. Both subscribed seriously to the ANSI standard for the M language and had internal "Standards and Conventions" which were routinely enforced as well. Now, just as the M community and the software development industry are moving away from standards and towards the use of proprietary software development environments, a voice in the broader industry cites this trend as one of the many problems with the software development industry.

### "Software Is a Mess - and It's Your Fault!"

Last August at the SD'98 Expo in Washington D.C., Michael Vizard, Executive News Editor of *Infoworld* presented a keynote address using the title in boldface type above. Yes, it was a guilt trip. Clearly, Mr. Vizard feels that one of the roles of an editor is to be controversial. Over the next forty-five minutes, he succeeded in presenting controversial ideas cleanly and succinctly. I felt myself experiencing a sense of "deja vu." Ed and I often spend time worrying about the state of the software industry. We have a lot of common ground with Mr. Vizard in our concerns.

Issue: The software development world is in chaos.

- "Business interests, also known as vendors, routinely conspire to subvert the best intentions of software developers. Developers are the cannon fodder in that war." Vizard identifies this strategy using a familiar phrase "Divide and conquer." It's in the vendors' interest to get you tied to their platform. Microsoft, Sun, and most other vendors are working this angle.
- The programming profession is in trouble
  - "Application backlog is at an all time high"
  - There's a "Severe shortage of developers"
  - "Outsourcing"—removes control
  - "Offshore development/age bias"
  - "No commitment to quality—can't learn"
  - "No life outside of work and no respect"

Problems with current development environments:

- **Consistency:** A web page designed for one browser looks pitiful on one of its competitors', or even on a previous version of the same tool. Callouts to word processing software break with each new release of the word processing software. Try cutting and pasting a column containing date of birth from one spreadsheet to another—on some the data will change before your eyes as you paste.
- **Quality:** How do you ensure quality and robust performance on a system that's only been released for a few weeks or months?

• **Portability:** Write once, run anywhere is no longer a requirement. Now it's "Write it once, run it under (platform) only." Remember Henry Ford and "Any color you want, as long as it's black?" . . . but we regress . . .

• **The name is everything.** Non-technical people buy for the "cachet" of a name they've heard in the press. Software professionals want to work with environments that look good on a resume.

• **What's in a name?** Java ( was mostly vaporware when the press first started hyping it. Cache was M with bells and whistles, and the jury is still out on their implementation of objects). Ask somebody from InterSystems to define "encapsulation," then look at Caché objects: It's easy, they're in globals, and modifiable using a global editor.

This profession is coming up on its fiftieth anniversary, and for the above reasons as well as others, there is still enormous stress associated with each release of a new version of a product and each launch of a new product. Software project failures are as common as successes. Fifty percent success at fifty? To be honest I don't have hard figures to back up that statistic, but how much of the code you have written has been successfully and completely implemented? I thought so.

If we are to become a mature profession, we need to look around us at other successful professions and crafts: Doctors have the AMA. Lawyers have the ABA. Even librarians have a nationwide organization that speaks for them.

• Programming professionals need a voice. The voice should be an organization that is chartered to create a message about the profession, and to communicate it to the press and the world in general.

• Programming professionals need standards for acceptable development environments and for software quality. Remember the federal government? They are often four or five years behind the high-tech curve, read boring but solid. From a management perspective, that's fine with me.

• Programming professionals could use some sort of certification process. Ok, ok . . . someone out there is going to whine about creativity. Be creative, but be creative without creating obtuse, hard-to-read, undocumented and unmaintainable code. Be creative within a set of standards and guidelines that help ensure that your code will be useful and well understood. Be better than the norm, then be creative.

Put together, all of that sounds like an organizational charter. Michael Vizard hearkened back to the existence of guilds and their role in ensuring product quality and the capability of workers. M programmers have the MTA, an organization run by volunteers for the good of M programmers and M shops. It could be anything we want it to be, a

guild, or a profession-enhancing association. The MTA will be as good, and as useful, as the folks who step up to define its role. What do you want the MTA to do for you?

- training organization
- publisher
- programmer certification bureau
- standards source
- community/press voice

Unfortunately, programmers are not, for the most part, "doers and joiners." If they were, the IEEE, ACM, and MTA would have much greater memberships than they currently do. This one is up to you. You can get involved in the organization and try to help it form a vision for the next decade, or you can opt out. Java doesn't have an organization like this, nor do C, C++, etc. What's in it for you? That is entirely up to you. And if it doesn't serve your needs, Mr. Vizard is right, it's your fault. **M**

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Jan 1, 2000

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