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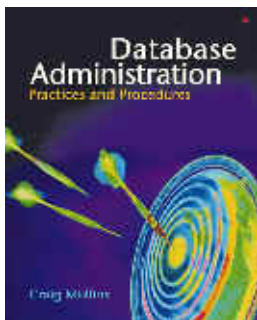
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## The DBA Corner

*by Craig S. Mullins*



### **A Forced Tour of Duty**

Mainframe developers are well aware of the security, scalability, and reliability of mainframe computer systems and applications. Unfortunately, though, the bulk of new programmers and IT personnel are not mainframe literate. This should change. But maybe not for the reasons you are thinking.

Yes, I am a mainframe bigot. I readily admit that. In my humble opinion there is no finer platform for mission critical software development than the good ol' mainframe. And that is why every new programmer should have to work a tour of duty on mainframe systems and applications after graduating from college.

Why would I recommend such a thing? Well, it is because of the robust system management processes and procedures which are in place and working extremely well within every mainframe shop in the world. This is simply not the case for Windows, Unix, and other platforms. By working on mainframe systems newbies will learn the correct IT discipline for managing mission critical software.

What do I mean by that? How about a couple of examples: It should not be an acceptable practice to just insert a CD and indiscriminately install software onto a production machine. Mainframe systems have well-documented and enforced change management procedures that need to be followed before any software is installed into a production environment.

Nor should it be acceptable to just flip the switch and reboot the server. Mainframe systems have safeguards against such practices. And mainframes rarely, if ever, need to be restarted because the system is hung or because of a software glitch. Or put in words PC dudes can understand: there is no mainframe "blue screen of death." Indeed, months, sometimes years, can go by without having to power down and re-IPL the mainframe.

And don't even think about trying to get around security protocols. In mainframe shops there is an entire group of people in the operations department responsible for protecting and securing mainframe systems, applications, and data. Security should not be the afterthought that it is in the Windows world.

Ever wonder why there are no mainframe viruses? A properly secured operating system and environment make such a beast extremely unlikely. And with much of the world's most important and sensitive data residing on mainframes, don't you think the hackers out there would just love to crack into those mainframes more frequently?

Project planning, configuration management, capacity planning, job scheduling and automation, storage management, database administration, operations management, and so on – all are managed and required in every mainframe site I've ever been involved with. When no mainframe is involved many of these things are afterthoughts, if they're even thought of at all.

Growing up in a PC world is a big part of the problem. Although there may be many things to snark about with regard to personal computers, one of the biggest is that they were never designed to be used the way that mainframes are used. Yet we call a sufficiently “pumped-up” PC a server – and then try to treat it like we treat mainframes. Oh, we may turn it on its side and tape a piece of paper on it bearing a phrase like “Do Not Shut Off – This is the Production Server”... but that is a far cry from the glass house that we've built to nourish and feed the mainframe environment.

Now to be fair, strides are being made to improve the infrastructure and best practices for managing distributed systems. Some organizations have built an infrastructure around their distributed applications that rivals the mainframe glass house. But this is more the exception than the rule. With time, of course, the policies, practices, and procedures for managing distributed systems will improve to mainframe levels.

But the bottom line is that today's distributed systems – that is, Linux, Unix, and Windows-based systems – typically do not deliver the stability, availability, security, or performance of mainframe systems. As such, a forced tour of duty supporting or developing applications for a mainframe would do every IT professional a whole world of good.

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